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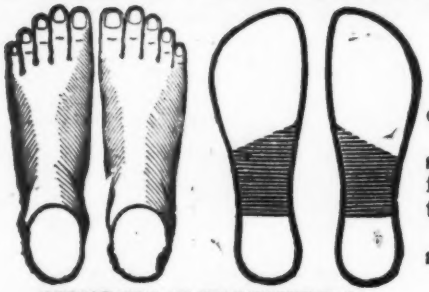

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Observations
ON
THE TREATMENT OF WOUNDS IN WAR.

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I HAVE now received letters from Mr. Arthur Edmunds covering the first few weeks of his work at the Dardanelles, and although he will no doubt later publish full details of his work and experiences, it may be of interest if I give a short account of what he is doing in the form of extracts from his letters, and also make some remarks on an "investigation" which has been carried on by some surgical consultants and others in France. Before doing so, however, let me once more emphasise the suggestions which I have made as to the treatment of these cases, because, although I thought that I had made my views quite clear on several occasions, they have evidently not been grasped by the authorities in France, and hence the extraordinary muddle which they have made of the whole matter.

Last November I was asked to give an address on the treatment of wounds in war before the Medical Society of London, and in it I pointed out that all severe wounds which reached this country from the front were septic, many of them very badly so (this is still the case), and that evidently no real attempt was being made to disinfect these wounds soon after their infliction. I went on to describe how we (i.e., those trained under Lord Lister) had been in the habit of dealing with similar wounds, especially compound fractures, in civilian practice, the results which we usually obtained, and how I would go about the disinfection of wounds at the front in the present war. I especially referred to the period of time after the infliction of the injury during which there was a probability that such disinfection might be successful, varying according to the experience of Reyher and others in the Russo-Turkish war from 8 to 12 hours. The gist of my remarks was that the first and most essential point in the treatment of these cases was that all severe wounds should be thoroughly opened up and disinfected in the manner described, provided they come under the surgeon's care in reasonable time and that then the wounds should be drained and dressed with materials containing antiseptics. If this was done early I expressed my opinion that there was a good chance of success in a considerable proportion of the cases; even if the number of successes were comparatively small it would amply repay the trouble. That a certain number of cases—e.g., those infected by the bacilli of tetanus and gas gangrene—would almost certainly fail with the means then described is true, but in the course of more recent researches we have found that a powder consisting of equal parts of salicylic acid and boric acid, which we have termed "borsal," is very efficacious against infections by these organisms, so that now, with the addition of this substance to the other measures, the chances of successful disinfection, if undertaken within 8 to 12 hours after the infliction of the wound, are very considerably improved.

A very important and reasonable objection was raised to this plan by those with experience at the front—viz., that it was comparatively seldom that the cases could be brought under treatment in time to enable thorough disinfection to be carried out with any real chance of success. I therefore turned my attention to this point, and made experiments with the view of seeing whether any plan could be devised by which the growth of the infective organisms which had got into a wound might be delayed, and so the period of time during which disinfection was possible might be lengthened. This matter was investigated by a small committee appointed by the Director-General of the Naval Medical Service consisting of Fleet-Surgeon P. W. Bassett-Smith, Mr. Arthur Edmunds, and myself, and we very soon found that certain antiseptic substances had the power of diffusing through blood clot and dead tissues and inhibiting the growth of micro-organisms in a remarkable manner and over a considerable area. Hence we suggested as a preliminary point for investigation at the front (where alone it could be done) the temporary introduction of various pastes and powders into wounds as soon as possible after their infliction with the view of delaying the growth of the infective organisms, and thus lengthening the interval after the infliction of the wound during which satisfactory disinfection might be possible.

My recommendations therefore consist of two parts—(1) the disinfection of wounds, and (2) preliminary treatment with the view of lengthening the time within which such disinfection might be possible. The second suggestion is practically the use of an improved first field dressing. Curiously enough, and to me quite inexplicably, these two recommendations have been confused together in the minds of the surgeons at the front, and the second has somehow or other been looked upon as the most important and as meant to displace the first.

HISTORY OF AN "INVESTIGATION" IN FRANCE.

A short historical account of a so-called "investigation" of my suggestions which has been carried on in France may be of interest and, if it did not concern such a very grave subject, somewhat amusing as an example of how not to carry out a scientific investigation.

I may recall what I emphasised in the Hunterian oration, viz., that our work on the question of delaying infection in wounds, so as to lengthen the period during which subsequent disinfection was possible, was entirely preliminary, but that the time had come when the work must be transferred to actual wounds, and I suggested that a small committee should be formed, of which, of course, I should be a member, to look into the matter. For this purpose a small section of the front should be set apart and the committee should be able to follow the cases to the base, so that they remained from first to last in their own hands and did not pass through the hands of other surgeons who might not understand what was wanted and might, with the best will in the world, completely spoil the investigation. I also pointed out that, though I would begin with a carbolic or cresol paste, other things were being investigated which might act much better and which would naturally have to be tried.

No notice was taken of this suggestion, but after some weeks I received a letter from a consulting surgeon at the front, whom I may designate by the letter A, asking me to send him out some tubes of

cresol paste for trial; he said he already had some borsal. I therefore sent him some tubes with suggestions for their use, taking the opportunity of emphasising the value of borsal as compared with the cresol paste. I also pointed out that probably the chief difficulty that he would find would be to get the borsal and paste to the bottom of the wound, especially in the case of perforating wounds, and said that it was "up to him," as a surgeon, to devise surgical measures for this purpose; there is no evidence that he made any attempt in this direction. I may say that A had been previously specially emphatic as to the impossibility of disinfecting these wounds, and therefore I did not hope for much from his work. For if anyone starts an investigation with the idea that the proposed aim is impossible of attainment, he becomes very easily discouraged and very quickly throws the whole thing aside. The investigator must believe that there is a reasonable prospect of success, and in that case if he fails at first he tries other plans with the view of attaining the desired result.

In acknowledging the receipt of the tubes A made a very curious criticism. He says: "I see you advocate washing wounds with carbolic (1–20) and peroxide. Won't this make it more difficult to estimate the value of these other agents? For we get many good results from the carbolic and peroxide alone." This statement puzzled me a great deal. My suggestion was that the powder and paste should be applied in the trenches or the vicinity as soon as possible after the infliction of the wound, and that when the patient was brought to the first convenient place the wound should be opened up, thoroughly cleaned out and disinfected with peroxide, carbolic acid, &c., as described in my paper before the Medical Society. The powder and paste were therefore only the first field dressing. After much reflection I could only come to the conclusion that A had not grasped my meaning and that he was regarding our suggestions as referring to a method of disinfecting wounds meant to replace that described by me in my former paper. That, of course, could not be the case in large and perforating wounds at any rate, because it would be quite impossible in the trenches to ensure that the powder and paste had reached the whole infected area, and if it did not do so infection of the deeper part of the wound must still occur. I therefore wrote A again reiterating the position, at the same time saying that it might be a legitimate experiment in the case of a small wound, where there was good reason to believe that the powder and paste had reached all parts of the wound, to wait a little and see whether infection had been avoided. If infection occurred the wound could always be opened up and drained, &c., as usual.

Some little time elapsed and then I had another letter from A in which he said that owing to the press of wounded he had not been able to carry out the proposed investigation, but that he hoped later on, when things became quieter, that he would be able to look into the matter. In the meantime he had distributed the tubes (he says nothing of borsal) to various hospitals. I confess that I was so disgusted that I did not reply to this letter. If our suggestions were to be of any use at all, it was when there was such a press of wounded that the surgeons could not hope to cope with the disinfection of the wounds within the requisite period of time, and his statement that he had distributed the tubes to the hospitals showed that he had still failed to grasp the point; they should have been distributed to the firing line. I often wondered afterwards what would happen if the tubes were used at the hospitals. However, as the opposition to the use of antiseptics was so great on the part of the authorities at the front, I did not worry much about it, as I thought they would probably be thrown aside and not used at all.

About this time a surgeon, whom I may designate as B, called on me to discuss the question of the treatment of wounds in war as he was going to the front. Knowing him to be a man of great energy and ability, I asked him to come down to Chatham, showed him some of our work, and instructed him as well as I could in my ideas. He went out to the front and proceeded to carry out these ideas as far as possible, and on a visit to London some time later he told me about several of his cases and results, which seemed to be quite good. He had been working hard and under dangerous conditions in the trenches and at the dressing stations—the proper place for this work. I subsequently heard from him that his results continued good and were considered satisfactory by most of those who saw them. He is the only surgeon who has communicated with me and with whom I have had the opportunity of speaking and making the meaning of the whole matter clear.

The next occurrence was a letter from A saying that he had collected a number of cases which had been treated with the paste with unsatisfactory results (by whom or how they were treated he does not say, nor whether the wounds were afterwards disinfected or not). He comes to the conclusion that "the results are certainly disappointing, and I am bound to say that I agree with the conclusion that the cresol paste and borsal are like other antiseptics in their inability to prevent sepsis in the wounds we get here." The reference to "other antiseptics" is peculiar, because only a few weeks before he had said that "we get many good results from the carbolic and peroxide alone" (see above). The question arises what are considered at the front to be "good results." I should have said that the entire prevention of sepsis was the only thing that could be called a good result, and as such I interpreted his former letter.

A also enclosed a report from C, a major, R.A.M.C., and "specialist in operative surgery." In his report he makes two statements as regards cases in which cresol paste (he does not mention borsal) had been applied and which had passed through his hands. "1. Some of the cases have obviously been anæsthetised, the damaged edges of the skin wounds excised, the openings enlarged, good drainage provided, and the paste introduced. These have been on the whole satisfactory, but the results are no better—if as good—than in similar cases simply treated by provision for free drainage." Here no history as to disinfection is given, and further it is not clear whether his remark as to the "results" refers to the condition of the wounds and the patients when they first came into his hands or to their progress after he had observed them for some days. This is a very important point, for it is quite easy for a case to go wrong, and I gather from a remark which he makes at the end of his report that he cleans the skin with methylated spirit, which will not seriously incommode the bacteria which are present on it, and that he uses aseptic gauze and wool which will not keep an open wound, with free discharge, aseptic for 24 hours. His

second statement is as follows: "2. In cases which have been treated simply by external cleansing, injection of paste, and the application of protective dressing, the use of the paste appears to have a harmful effect. In cases of this latter group the wounds are commonly found plugged with a mass of coagulated blood and paste. When the plug is removed a profuse discharge escapes, the tissues are greatly swollen, and gas is not uncommonly present." All this I fully believe; it in no way affects the question, and is only evidence of the fact that those who had to do with these cases did not understand the object of the paste and took no steps to disinfect the wounds. Further, I indicated in previous publications that the wound need not be filled with the antiseptic, but that small deposits in the blood clot and over the wound about half an inch apart would probably suffice for the temporary purpose. Drainage of these wounds is, of course, a necessity, and seeing that I have fought for years for free drainage with tubes as opposed to plugging wounds with gauze under the impression that the wound is being drained, it strikes me as very curious that it should have been supposed that in any suggestion that I made I had meant to omit this very important item.

In acknowledging A's letter and enclosure I expressed my great desire to go out to France and look into the matter with him, and said that if he would ask the Director-General to send me out I would get leave from the Admiralty and come in a few days. My aim in asking to go out was not to push or condemn any particular plan or paste, but to investigate the whole matter, to see what was good and what was bad, and to ascertain the best methods of procedure. Indeed, I mentioned in my letter that I had other antiseptics and materials which I wished to try, and which might quite likely displace the cresol paste, of which I had always seen the possible disadvantages. Although I have heard from A since, he has never referred to my request, nor, so far as I know, taken any steps in the matter. I may say that I subsequently made the same request to a bacteriologist (D), and in reply he gave me to understand that disinfection of these wounds by antiseptics was not possible and that so long as I held the opposite opinion no useful purpose would be served by my presence at the front. There was, of course, no personal animus in the matter, and had I been an advocate of hypertonic salt solution I expect he would have welcomed me warmly! The reader may ask why I did not use influence in England to get sent out, but, apart from the fact that I have never tried to get anything in that way and am not going to begin now, if I had been sent out from home it would have been very difficult for me to make any investigation, whereas if I had been invited by the men in authority already at the front I would naturally have had every facility for investigation placed at my disposal.

To resume my narrative. The next thing which occurred in France was the assembling of an imposing body of distinguished medical colonels and majors to sit in judgment upon me and my works. They had before them various cases of gas gangrene in which cresol paste had been applied, and they also brought B down from the front with a number of cases which he had treated in order to contrast them with similar cases from elsewhere. But they apparently had none of the evidence which one would think was necessary for a careful judgment; no facts as to who had applied the antiseptics, how it had been done, how soon after the injury, at what time afterwards the wound had been disinfected, if indeed it had been done at all, in what way disinfection had been carried out, what the subsequent treatment had been, and so on; indeed, none of the data necessary for the most elementary judgment on the matter. Sufficient for them that cresol paste had been used and that gas gangrene, in some cases very acute, had occurred. I understand that they examined B's cases and had no fault to find with them, although they did not think they were any better than their own, but they showed him several cases of bad gas gangrene in which cresol paste had been used by other surgeons. As if they had never had bad cases of gas gangrene before or since! In short, they condemned pastes, powders, disinfection of wounds, &c., root and branch, stellenbosched B and sent him to a sand heap, where he could do neither harm nor good, and settled the whole question of antiseptics and disinfection to their entire satisfaction and comfort. One can imagine what a great relief it was to them to see that they had been right all along and what a delightful evening they must have spent after this meeting.

It is interesting that in a letter which I had from D (a bacteriologist) subsequently to this great meeting he used the expression, "If you *really mean* that the paste is simply a temporary expedient you would do better with a liquid," &c. This was apparently the first glimmer that he had of what I really meant and yet he had already sat in judgment on and condemned the whole thing! In another part of his letter he speaks of disinfection with carbolic acid and says that its effect is only transitory and that sepsis again appears in a day or two. From this it seems to emerge (to use his favourite expression) that some effect had been produced by the carbolic acid, though only transitory. Could it be possible that the wounds had really been disinfected at the time and were again re-infected from the skin? This might quite well be the case if the disinfectant used for the skin was methylated spirit and if aseptic gauze and wool were applied as dressings.

In one of the periodical notices in the newspapers (the *Times*) of the excellent work being done at the front by the Army Medical Department, and especially of the bacteriological work, the statement is made that Sir Almroth Wright proposes to discover a method of treatment by vaccines which will solve all these septic difficulties. I should not be surprised if those who read this notice formed the opinion that this discovery had already been made and that any other methods, especially the use of antiseptics, could be finally dismissed. The fact, however, is that this discovery, like that of the physiological treatment of wounds, has yet to be made. I remember, in 1890, when Professor Koch brought forward his first work on tuberculin that he told me that he thought he had also solved the question as regards the pyogenic organisms on the same lines. Nevertheless, he never got it right, although he had it always present in his mind for the next 20 years. I wonder if Sir Almroth Wright will be more successful! It is a big thing to undertake to raise artificially the immunity of a patient to such a height that anything like the massive doses of organisms which enter these wounds will be prevented from growing and establishing themselves in the wounds. So far none of the artificial vaccines, typhoid, &c.,

have succeeded to this extent. A considerable proportion of the vaccinated still get the disease, and some of them even die. Even vaccine lymph, which produces a higher degree of immunity than these artificial bacterial vaccines, does not prevent an occasional patient becoming affected with small-pox, and in animals most immunities (even natural ones) can be broken down by massive doses. I quite agree that if this discovery were made it would solve the whole problem, but till this is the case what are we to do? Are we to fold our hands and content ourselves with injecting hypertonic salt solution, which is of as much use in preventing these infections as a sick headache, or shall we not use means which previous experience has shown us to be of great value? I believe that the day will come when some means short of operation will be found to arrest the growth of cancer, but are we therefore to leave the cases alone in the meantime and wait till that day arrives? Do we not all agree in the advisability of operations, extensive, mutilating, sometimes fatal, and never certain of preventing recurrence? Why take up a different point of view when dealing with these very grave septic diseases?

I shall not say more in case I should disturb the peace which these surgeons and bacteriologists hoped to enjoy after upsetting the antiseptic fetish, but shall pass on to the reports which I have received from the Dardanelles.

REPORTS FROM THE DARDANELLES.

The following is the gist of various letters which I have received from Mr. Edmunds with regard to his work at the Dardanelles; this will show how far the "investigators" in France are justified in their conclusions as to the impossibility of disinfecting these wounds. Mr. Edmunds reached the Dardanelles on April 30th and joined the staff on the hospital ship *Soudan*, to which he had been appointed Staff-Surgeon. When he arrived the ship had just discharged a shipload of wounded, and several days elapsed before wounded began again to come on board. The first letter I have giving any detailed account of his work is dated May 24th. Accompanying this letter he sent the following notes of 17 cases from the officers' ward as a sample of his work, and he mentions various other cases in addition. On this occasion the cases came directly on board ship without any preliminary treatment except perhaps a field dressing, and he was therefore able to set to work to disinfect them at once on the lines which we have been accustomed to follow in civilian practice. Under the circumstances there was, of course, no necessity for the preliminary treatment with paste and powder, but after having disinfected the wounds he dusted them with borsal powder and introduced some cresol paste into them. The patients were all anæsthetised, the skin over a large area around the wound thoroughly scrubbed with soap and 1 in 20 carbolic lotion, the wound opened up, cleaned out, and all recesses washed with Lister's strong mixture (1 in 20 carbolic lotion, containing 1/500 part of corrosive sublimate), badly soiled tissues clipped away, the wound dried and powdered heavily with borsal powder, some cresol paste squeezed in, drainage-tubes inserted, and antiseptic dressings applied. As a good many cases were suffering from shock and loss of blood, continuous subcutaneous saline infusion was started as soon as the patient was under the anæsthetic.

In addition to the cases in the accompanying list he mentions various others which he had treated. Among them were six cases of wounds of the skull. "These I cleaned up with strong mixture, shaving, clipping away all the dead tissue, removing the edges of the wound, &c. As regards sepsis, they are all clean, but some died of the brain injury." With reference to cases of this kind he says in a later letter: "Head injuries have done well. I have had a lot of depressed fractures and perforating wounds and about 60 per cent. have lived; none of them have suppurated." As regards intestinal wounds he had done some laparotomies, and although there were some encouraging cases, "as a whole my results are bad. They don't die of peritonitis, but of shock."

Summing up his experiences of this first voyage in a later letter he says: "The results of the powder and paste are excellent, and it is nonsense to say that these wounds are hopeless from the point of view of disinfection." Speaking of the results in a ward which was under the joint care of my son (W. H. W. Cheyne) and himself, he says, after some complimentary remarks about my son: "There is only one case septic in his ward—a compound fracture—which there was the ghost of a chance of cleaning, and several are clean that have no right to be anything but fully septic." "We have had four cases of gas gangrene. Two Turks who had been left a long time, one smash of the os calcis, and one compound fracture. The latter had had paste put in on shore—not by me—the others had no paste applied." "We have simply lived in the theatre; one day from 5 A.M. till 2 A.M. next morning."

The following is the list which he sent:—

No.	Time before treatment.	Nature of injury and remarks.
		Cases Clinically Aseptic.
1	2 hours.	Gutter wound of skull not involving grey matter.
2	5 ,,	Perforating bullet wound of shoulder not involving bone.
3	?	Bullet wound of hip. Small exit and entrance; might have healed anyway, but obviously no retardation of healing.
4	3 ,,	Severe laceration of forearm involving both bones. Question at the time whether it should not be amputated. Doing well.
5	?	Small wound in back; no retardation in healing.
6	3 ,,	Bullet wound of right knee, fracturing patella and probably going into joint. Now quite quiet and healing well after four days.
7	?	Wound through lower jaw and hard palate; exit below ear on opposite side. External wounds quite free from inflammation.
8	2 ,,	Wound of right shoulder, bruising brachial plexus.
9	10 ,,	Bullet entering through maxillary antrum, passing across pharynx and causing large hæmatoma over shoulder. Three days later no trouble in track through the tissues.
10	6 ,,	Flesh wound of left leg.
11	?	Wound of right kidney.
12	24 ,,	Wound of shoulder probably involving neck of scapula.
13	16 ,,	Shrapnel wound comminuting humerus. Wound opened up, and the fragments of bone, which were in the form of long splinters, tied up with a piece of wire like a faggot. After disinfection with strong mixture, borsal powder freely introduced, and then some cresol paste. Wound sutured around a drainage-tube.
		Case Clinically Slightly Septic.
14	10 ,,	Slight splinter wounds of various parts of body, some of which are superficially septic. Wounded by a bomb.
		Cases Definitely Septic.
15	7 ,,	Lacerated wounds of forearm involving bone.
16	?	Extensive wound involving loss of right side of jaw from symphysis to ascending ramus with large wound in neck. Patient is doing well, but is, of course, septic.
17	?	Extensive laceration of scalp. Right arm amputated on the beach before reaching hospital ship. Is now dying.

Mr. Edmunds also sent the following list of cases treated by one of the other surgeons (Dr. C. Taylor). The exact method of treatment is not stated, but evidently powder and paste were freely applied.

No.	Time before treatment.	Nature of injury and remarks.
1	6 hours.	Shrapnel wound of left knee. Shallow punched-out wound just below patella. Skin swabbed well with 1-40 carbolic; cresol and borsal applied. Four days later wound dry and practically healed. Joint distended with fluid (blood removed by tapping) and very painful. (He has run a temperature up to 103°, but has been better since he was tapped and about ʒii. of blood removed.)
2	8 ,,	Bayonet wound of left calf. Incised wound about 1½ in. long. Cresol and borsal. Five days later wound dry and practically healed.
3	4 ,,	Bullet wound of right wrist. Compound fracture of radius. Anæsthetic. Skin cleaned with strong mixture; cresol injected. Some swelling, but wounds appear clean and healthy.
4	2 ,,	Bullet wound of right shoulder (shrapnel). Entry in suprascapular region; bullet lodged. Seven days later wound dry and scabbed over; projectile still *in situ*.
5	5 ,,	Shrapnel wound of right hypochondrium. Shallow punched-out wound. Four days later wound clean.
6	3 ,,	Bullet wound of right shoulder. Entry through right deltoid, exit immediately below clavicle in outer third; hæmorrhage free. Anæsthetic. Exit wound opened up, torn vein ligatured. Both wounds filled with cresol and borsal applied. Wound sutured and drained. Four days later no signs of suppuration.
7	6 ,,	Bomb wounds, right arm, right ankle, left buttock; all superficial, punctured wounds. Five days later wounds not quite healed but clean.
8	7 ,,	Bullet wound through left ankle. Skin swabbed with 1-20 carbolic, and cresol and borsal applied. Three days later wounds practically healed.
9	4 ,,	Bullet wound of right upper arm. Compound comminuted fracture of shaft of humerus at junction of upper and middle thirds. Anæsthetic. Skin scrubbed with strong mixture, cresol injected deeply, and borsal dusted over wounds. Four days later no signs of suppuration.
10	3 ,,	Shrapnel wound of right shoulder. Six days later wound practically healed; fragment of shell still inside.
11	3 ,,	Bullet wounds of scalp and cheek. Small wounds of exit and entrance. Three days later wounds practically healed.
12	8 ,,	Bullet wound through left wrist. Wound of exit lacerated and about 1 inch in diameter with hernia of muscles. Three days later a good deal of swelling of lower third of arm, but wounds looked fairly clean.
13	6 ,,	Bomb injuries of chest and face; punctured wounds and scorching. Five days later mild suppuration only; no inflammation in tissues surrounding wounds.
14	5 ,,	Multiple shell wounds. Scorching of right cheek. Four days later cleaning up; mild suppuration only.
15	4 ,,	Shell wound of forehead, severe scorching of face and both legs, with occasional punctured wounds from shell fragments. Cresol all over wounded areas with borsal on lacerated areas as well. Four days later mild suppuration; scorched areas cleaning up very well.
16	12 ,,	Shell wounds of both thighs and scorching. Cresol spread over scorched areas and into wounds; subsequent dressing with Lassar's paste. Four days later mild suppuration in wounds; scorched areas look clean.
17	2 ,,	Bullet wound of left leg Shrapnel bullet through upper third of leg, grazing tibia. Wounds healing five days later, with no marked suppuration.
18	4 ,,	Bullet wound of back; entry about 1 inch to right of mid-line at level of sixth dorsal vertebra and exit over angle of scapula. Seven days later entrance wound dry; exit suppurating but not violently.
19	8 ,,	Bullet wound of right thigh. Entrance on outer aspect about 4 in. below great trochanter and exit on inner aspect about 2 in. above adductor tubercle. Four days later suppurating freely; probably piece of cloth from trousers deep in wound.

I may say that I went out to Malta in June in the hospital ship *Rewa*, and we brought home 548 wounded soldiers and sailors, among them a number of cases from the hospital ship *Soudan*, and I was much struck with these cases, several compound fractures and other wounds having already healed as contrasted with other septic cases of compound fracture, &c.

Second Voyage.

Having discharged this load of wounded at Malta the ship returned to the Dardanelles, and the next letter I have is dated June 10th. That and letters dated June 16th and 19th gave the results of this second voyage and his further experiences. The state of matters had changed considerably since his first voyage. On that occasion the wounded were transferred directly to the hospital ship as soon as possible with little or no previous treatment, but during the absence of the ship at Malta, dressing stations had been established on shore, the patients were often much later in reaching the ship and most of the wounds were already septic on reaching the ship. On June 10th he says:—

We have a cargo of wounded on board, and I will let you have a report of them when we discharge them. Paste or no paste, it is absolutely absurd to say that these wounds differ from civil wounds. It is true they are severe, but by the use of antiseptics you can get good results, and the pastes have certainly a rôle to play. This is the sort of case we get. A sergeant-major of marines was hit by the explosion of a 6 in. common shell. A big bit carried away his left arm near the shoulder-joint. His back was peppered with small wounds, one of which was extensive, and was badly burnt by a lump of hot shell, the wound extending up under the lower angle of the scapula. His scalp was simply a lacerated bog. I got him eight hours after the injury. I amputated his arm, having the greatest difficulty in finding anything like decent flaps. While I was doing the amputation the anæsthetist shaved his head and powdered and pasted it all over. I only found the large wound in the back as I was doing up his arm, and he was not fit for anything but powder and paste. His head is now (date of injury not given) dry, the scalp moves freely and no bogginess. I think the amputation is going to be fairly all right, although the skin was so rocky. The back wound is excellent, just the simple hard clot, which, no doubt, will come away, with a good deal of serous discharge around it, and the man is quite comfortable.

In his letter of the 16th he says:—

The amputation has gone slightly septic, but only slightly—i.e., I have two tubes, one about an inch long and a smaller one two inches long and the rest of the wound has healed: this is not bad considering the ghastly condition of the surrounding skin. As regards the back, after a week the clot began to come away, leaving a clean lymph-covered wound with no loss of skin or deeper tissues. I believe under normal conditions this would have been one of the stinking cavities with which I am now quite familiar.

The powder is very valuable for some big wounds—e.g., a man was shot through the buttocks, with what we do not know, but it is one of the largest superficial wounds I have yet seen; it goes down to the bone and at the lower part opens into the rectum. It was freely powdered; there has been no sloughing and it is healthily granulating and no smell.

On the 19th he writes:—

This trip has not been good for trying the powder and paste, as we got all our cases from a base and they were septic on arrival. I am getting fairly convinced that the real trouble is that most men have been so impressed by their teachers with the dangers of antiseptics that they are timid of using any. I think we can claim reasonable success in cleaning up wounds here, and I am absolutely sure that we have done a lot of good to them.

I have had one case of malignant œdema—a compound fracture of tibia and fibula with maggots in it. I amputated high up, but it spread to the trunk, and he died 24 hours afterwards.

I have found a few cases on board who have had powder and paste put in on the beach with fairly good results; they are on the enclosed sheet with the others. One case which

looked as if the paste had been put in, but not very thoroughly, came on board, the wound stinking, with gangrenous skin, simply from loss of vascular supply; the discharge contained B. tetani. I opened up the wound thoroughly, clipped away all the gangrenous skin and sloughing muscle, slit up some cavities of pus under the skin, and cleaned up, covering the wound with the powder. One bottle (1 ounce) covered a wound about 6 by 3 inches. Next day it was inodorous and is doing well (antitetanic serum was used as well).

I have been very pleased with the borsal in stinking, sloughy wounds; it deodorises and cleans them up rapidly.

I enclose report of a number of cases—very unsatisfactory as regards statistics, as so many were foul and septic; but you will see the general conclusions remain. I am more and more convinced that military wounds are like other ones, and that the injection of bacteria by the bullet is nonsense; if it were not so, why are not the high-velocity bullets the worst instead of shrapnel and shell? Of course some wounds are past praying for. The fact is that practically no one ever sets to work to clean up wounds deliberately under an anæsthetic. They dress wounds, but that is all, and even when cleaned they pass through such a number of hands that they are pretty certain to go wrong.

Cases Treated on the Beach.

CASE 1.—Age 20. Wounded on June 5th. Paste put in five minutes after he was shot; redressed and more paste five minutes later; dressed again half an hour later. Dressed again on ship on June 6th. June 18th: Healed. The wound was a blind wound of the muscles of the thigh.

CASE 2.—Small bullet wound over anterior superior spine, track passing upwards to a wound of exit the size of a crown piece just below the ensiform, not affecting viscera. Wounded on June 10th at 11 P.M. Removed from trenches next morning at 8 A.M. and paste put in at 8.30. Quite comfortable, "no pain to speak of." June 19th: Wound of entry healed; wound of exit granulating nicely; no smell; watery discharge; being dressed with 1·8 per cent. NaCl on cyanide gauze. General condition excellent.

CASE 3.—Age 28. Wounded on June 12th. Bullet entered arm, passing through and entering trunk, emerging on buttock. Track marked by much subcutaneous ecchymosis. Paste in half an hour. Wounds 1, 2, and 3 now dry; wound 4 suppurating slightly.

CASE 4.—Age 22. Wounded through the region of knee; joint swollen but movable; joint perhaps opened. Wounded on June 10th at 10.30. Powder put on at once in communication trench; dressed again at dressing station, and finally at base on the beach he was shaved, washed, and painted with iodine. Dressed daily since on transport and this ship. June 18th: Scabbed over.

Cases practically all Septic on Arrival (except Case 21).

CASE 5.—Age 30. Shrapnel wound of back. Paste, &c. (24 hours later). Slight sepsis first week; now flabby granulation.

CASE 6.—Age 19. Shrapnel of head (12 hours). Local sepsis.

CASE 7.—Age 18. Torn wound of thigh, wound of penis (72 hours). Cleaned up by me, drained, plastic on glans with removal of prepuce. Penis held well. Wounds in thigh dusted with powder; cleaned up rapidly.

CASE 8.—Age 18. Shell wound of abdominal wall (72 hours). Septic and offensive on admission; now cleaned up well under dusting with powder.

CASE 9.—Age 29. Shrapnel wound of both legs; compound fracture of right tibia and fibula (72 hours). Slight sepsis.

CASE 10.—Age 19. Compound fracture of right tibia and fibula (24 hours, I think more). Free suppuration; now cleaning up.

CASE 11.—Age 19. Extensive shrapnel wound of chest wall (72 hours). Septic when received; now improving rapidly, but still discharging much pus. Some blebs on skin from powder (?). This man has made a very remarkable recovery. At first I did not think he had the slightest chance.

CASE 12.—Age 17. Bullet wound in back and shoulders (80 hours). Granulating slowly.

CASE 13.—Age 19. Shrapnel wound of face (8 hours). Wound granulating briskly.

CASE 14.—Age 26. Shrapnel wound of left forearm and knee (24 hours). Slight local sepsis of knee; arm clean.

CASE 15.—Age 24. Shrapnel wound of chest (12 hours). Clean.

CASE 16.—Age 20. Bullet wound of left ankle and right thigh (30 hours). Slight suppuration after three days; now dry and healed.

CASE 17.—Age 19. Bullet wound of forearm, fractured ulna, large laceration and septic (time uncertain). Now granulating and clean.

CASE 18.—Age 39. Shrapnel wound of buttock, very septic (72 hours). Granulating well.

CASE 19.—Age 25. Shrapnel wound of left shoulder (24 hours). Clean.

CASE 20.—Age 23. Penetrating wound of apex of lung, with wound of exit in posterior triangle (18 hours). The patient was collapsed on admission and there was a fair amount of oozing. I put in paste and powder, and for several days the wound kept fairly dry. The clot has now come away and the wound is granulating. The discharge about soaks the packing in the wound in 24 hours. The wound is a peculiar one in that it is held open by the pull of the pleura and the surrounding skin. It was as if a pyramidal piece of tissue had been pulled out of his shoulder and the space it came from left open. There is no spreading sepsis. No other disinfection was possible except paste and powder. The pleural fluid, which had to be drawn off, was darkly blood-stained. He is doing only fairly well generally, but his wound is healing rapidly.

CASE 21.—Age 44. Seen about 8 hours after wound (see above). Extensive wounds of trunk and head; arm blown off. Head wounds treated by paste and powder have kept very clean. Severe wound on back has kept clean, and is granulating up well. Arm amputated. Here it is hard to describe the condition, as he was peppered all over, with the skin burnt, &c. I expected the scalp to slough in big patches, but it is quite healthy, with heaps of little granulating wounds.

CASE 22.—Age 22. Bullet wound of thigh (18 hours). No anæsthetic. Clean after 10 days; discharges serous material, and granulating well.

CASE 23.—Age 20. Blind wound of back; spent bullet entering base first. Paste after 18 hours. Clean.

CASE 24.—Age 35. Perforating wound of sole of foot received while standing up. Paste after 12 hours. Clean and healed.

Third Voyage.

After reaching Malta on the last voyage Mr. Edmunds joined the hospital ship *Rewa* and went back to the Dardanelles. I have a short note from him written on July 4th after the ship had been filled up with wounded and was on her way back to Malta. This is not accompanied by any details. He says:—

I have nothing of interest to add to what I have already written about the powder and paste nor have I anything to retract. I have had the officers to look after, but none of the cases were early ones and they were unsuitable for the treatment. I have seen one or two cases which were treated on the beach with paste which have done pretty well, but these cases have been dressed by many people so that the results are of no value for statistical purposes. I had one case with a compound fracture of the skull who had been pasted. I cleaned away the paste and did an extensive elevation of skull and removal of fragments. There is absolutely no difficulty in cleaning out the paste. I helped another surgeon with a similar case. We have lost about a dozen gas gangrene cases (not pasted). When this gets a real hold it spreads like a fire in a straw-yard, but there are quieter cases which can be saved and we had some of them.

Mr. Edmunds makes the following remarks about cresol paste and borsal:—

Cresol paste may block a wound, but why not open it up and put a tube in? I have done so with good results. Cresol paste has a distinct antiseptic action and for superficial wounds—e.g., shell wounds—is admirable. Cresol paste does not burn the skin—i.e., I have not seen any

trouble of this sort. Borsal is invaluable used alone and with the paste, especially in wounds where it can be dusted in. It is very useful for gaping wounds which are sloughing and stinking, and will generally clean them up almost at once.

Towards the end of his last letter he says: "The men on board were much impressed with the antiseptic you gave them and want more of it. I hope you will also have some for the *Soudan*." I omit the name of this antiseptic for the present in case they should "investigate" it in France.

I may also refer the reader to a short note in the third number of the *Journal of the Royal Naval Medical Service* by Fleet-Surgeon John Martin, R.N.

THE RESULTS OF THE HYPERTONIC AND PERMANGANATE TREATMENT IN 1000 CASES OF CHOLERA;

WITH REMARKS ON THE VALUE OF ALKALIES IN THE PREVENTION OF URÆMIA AND THE ROLE OF ATROPINE.

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BETWEEN 1908 and 1910 I recorded [1] the discovery of the value of hypertonic saline injections and of permanganates internally in cholera, and early in 1911 I published my small book on "Cholera and its Treatment," showing a death-rate of 30 per cent. in 397 cases treated in the Medical College Hospital, Calcutta, or just one-half of the previous rate in the same institution. In the autumn of the same year I used these methods successfully in an outbreak of cholera at Palermo.[2] During the last four years I have continued the investigation in the special cholera wards which were placed under my care in April, 1909, on the advice of Sir Pardey Lukis, Director-General, Indian Medical Service, to whom I am greatly indebted for the opportunities thus afforded me. During this time I have obtained increasingly favourable results, as will be seen from Table I., while the method has been generally adopted in India and China, and favourably reported on by a number of medical men, especially by T. C. Rutherfoord, I.M.S.,[3] G. Duncan White,[4] J. W. D. Megaw, I.M.S.,[5] and L. Gunguly.[6]

As I now have accurate records of just over 1000 cases treated by hypertonic salines and permanganates, and certain important advances have recently effected a still further reduction in the mortality, until it has reached one-third of the rate in the same hospital during the 11 years before I commenced my investigations, it appears to be advisable to bring up to date the record of my researches and results, especially as it is only too likely that cholera may soon spread widely in Europe, and add greatly to the appalling nature of the present calamity.

Table I. shows the results of the new treatment compared with those of the methods formerly used in the same hospital during the 11 years 1895–1905, during which period the mortality was 59 per cent. In 1906 I first commenced giving normal saline solutions in large amounts intravenously, and the mortality fell from 59 to 51·9 per cent., only to rise again in 1907 (when I was absent on leave) to 59·5 per cent. In 1908 I commenced the use of hypertonic salines intravenously, and the mortality at once fell to 32·6 per cent. On adding large quantities of permanganates by the mouth late in 1909, with a view to destroying the toxins in the bowel by oxidisation, a further reduction in the mortality was obtained, as shown in Table I., to 25·0 per cent. in 1003 consecutive cases in the course of six years. During the last three years the mortality has been only 23·5 per cent., and in the first half of 1915, which is the time of the year

TABLE I.—*Results of the Hypertonic and Permanganate Treatment of Cholera compared with Former Methods.*

Years.	Cases.	Deaths.	Mortality.	Recoveries.
			Per cent.	Per cent.
Rectal and Subcutaneous Salines.				
1895 to 1905	1243	783	59·0	41·0
Normal Salines Intravenously.				
1906	112	57	51·9	49·1
Rectal and Subcutaneous Salines.				
1907	158	94	59 5	40·5
Hypertonic Salines Intravenously.				
1908 to 7-1909.....	294	96	32 6	67·4
Hypertonic Salines plus Permanganates.				
8-1909 to 12-1912 ..	436	124	28·4	71·6
1913	200	49	24·5	75·5
1914	222	49	22·1	77·9
1915 to June	145	29	20·0	80·0
8-1909 to 6-1915.....	1003	251	25·0	75·0

when the mortality is nearly invariably higher than in the second half, it has fallen to 20·0 per cent., or practically one-third of the rate in the same hospital during the 11 years before I commenced my investigations. I am much indebted to my friend Major J. W. D. Megaw, I.M.S., for continuing my methods with success [5] while in charge of the cholera wards during my absence on leave in 1911.

The Age of the Patients in Relation to the Mortality.

Table II. shows the mortality in each decade of life under the old and under the new system of treatment respectively during the last two and a half years, and presents points of considerable interest.

TABLE II.—*Age Mortality under the Old and the New Treatments.*

Old system 1895–1905.				New system 1913–15.			Reduction of mortality.
Age.	Cases.	Deaths.	%	Cases.	Deaths.	%	
To 5 years }	36	19	52·8	22	8	36·3 } 21·7	61%
5 to 10 years }				24	2	8 33 }	
10 „ 20 „	150	80	51·3	121	17	14·0	73%
20 „ 30 „	468	274	58 5	197	44	22 3	64%
30 „ 40 „	273	174	63·7	134	28	20·9	67%
40 „ 50 „	111	77	69 4	43	16	36·5	47%
Over 50 „	38	28	73·7	23	11	47 8	35%

The most striking feature is the exceptionally high mortality among patients below 5 years of age, between 40 and 50, and still more over 50—namely, 36·3 per cent., 36·5 per cent., and 47·8 per cent. respectively, as compared with the intermediate periods of from 6 to 40 years. The comparatively low mortality between 20 and 40 is of importance in that the greatest proportion of lives are saved in just those periods of life which are of the greatest economic value. The last column of Table II. gives the percentage reduction in the mortality for each decade, as compared with the old method of treatment in 1243 cases in the same hospital. During the first half of 1915 the mortality between the ages of 6 to 50 has been only 16·0 per cent., and between 5 to 40 years but 14·46 per cent. as a result of the recent improvements to be described presently

—namely, the use of alkaline transfusions and atropine subcutaneously. Some portion of the success is, however, due to greatly improved arrangements for the treatment and nursing of the patients with the opening of the new wards in April, 1909, at the instigation of Sir Pardey Lukis while Principal of the Medical College, although the mortality had been reduced by the hypertonic treatment alone under the old conditions to nearly one-half before the new wards were opened. In severe cases with marked collapse in children under 5 years and persons over 50 even the new system of treatment not uncommonly fails, these patients not having sufficient stamina to enable them to stand the practical starvation for two or three days owing to the loss of digestive powers of the gastro-intestinal canal, or the cardiac power to resist such an exhausting disease.

I hope in future to try continuous slow subcutaneous injections of hypertonic saline by means of a thermos flask, as used at the Shadwell Children's Hospital in infantile diarrhœa, to supplement intravenous injections in this class of cases, as the failures are usually due to rapidly recurring collapse. Enemata of glucose in the place of normal saline are also worthy of trial in the later stages for the purpose of combating exhaustion.

Analysis of the Causes of the Remaining Mortality under the Present Treatment.

As full records have been kept of all the cases, including 12-hourly observations of the blood pressure and specific gravity, an analysis of the cases in which the new system of treatment failed will be of interest and importance. A considerable amount of the remaining mortality is due to patients being admitted either moribund in the collapsed stage or still more frequently in a hopeless uræmic condition from two to seven or more days after the onset of the disease, all of which are included in the mortality figures. If the late uræmic cases alone are admitted, the mortality during the last three years falls to 19·3 per cent. Table III. shows the mortality from different causes during the last three and a half years. The comparatively preceding three years of 11·1 per cent. to 3·4 per cent. The method by which this most gratifying result has been achieved will be dealt with later in this paper. The majority of the patients who were lost in the collapse stage suffered from very severe attacks, requiring repeated intravenous injections. It is surprising how many such cases do ultimately recover if the hypertonic transfusions are persisted with. It is not uncommon for patients to be saved after as much as 20 pints of saline have been injected into their veins in the course of three or four days. Two patients each received 27½ pints with success this year, while a European patient recovered into whom Captain V. D. Green-Armytage and Captain N. H. Hume, I.M.S., injected no less than 34 pints. Apart from patients under 6 and over 50 years of age, the most unsatisfactory to deal with are those brought in complete collapse and pulseless at the wrist, but with a comparatively low specific gravity of about the normal point of 1057, instead of the usual degree of 1064 and upwards in severe cholera. The low specific gravity, in spite of great loss of fluid, indicates marked anæmia and bad health before the attack, and these patients have not the stamina to pull through such an exhausting disease.

Uræmia.—This cause of death occurs mainly in two classes of cases. Firstly, in patients admitted for suppression of urine two or more days after the onset of cholera, often of a comparatively mild type, but who have not been efficiently treated in the earlier stages. They account for nearly one-third of the fatalities due to this cause and are most difficult to deal with. They might fairly be excluded from my statistics in estimating the success of the hypertonic treatment, as their loss is solely due to neglect of my methods in the all-important acute stage of the disease. The second class of cases are very severe attacks, necessitating, as a rule, repeated intravenous saline injections, in whom the blood pressure cannot be maintained sufficiently high (100 mm. and over) to enable the kidneys to resume their functions. I long thought this condition to be largely a vaso-motor paralysis, but the very great reduction in the number of fatalities

TABLE III.—*Analysis of the Remaining Causes of Death from Cholera from 1912 to 1915.*

Year.	Collapse.		Uræmia.					Other causes.						Total admissions.	Total deaths.	Recoveries.	Deaths.
			Day of admission.														
	Number.	Percentage.	First day.	Second day.	Later.	Total cases.	Percentage.	Cardiac failure.	Pneumonia.	Hyperpyrexia.	Septic, &c.	Total cases.	Percentage.				
																Per cent.	Per cent.
1912	22	12·94	15	4	5	24	14·1	1	3	2	2	8	4·7	170	54	68·23	31·7
1913	24	12·0	11	2	4	17	8·5	2	4	2	—	8	4·0	200	49	75·5	24·5
1914	17	7·66	11	5	9	25	11·2	2	2	—	3	7	3·15	222	49	77·9	22·1
1915	15	10·34	2	1	2	5	3·4	2	5	—	2	9	6·2	145	29	80·0	20·0

(12·94 and 12·0 and 7·66 → 10·64; 14·1 and 8·5 and 11·2 → 11·1)

high death-rate in 1912 was due to a severe outbreak of cholera in November and December, when, instead of being nearly empty, the wards were full for the only time at that season during the 20 years of which I have the cholera records of the Medical College Hospital.

Collapse.—The most striking point brought out by this table is the fact that collapse was no longer the most frequent cause of death from 1912 to 1914, having been reduced by the new treatment from its former greatly predominating position to just below that of the deadly uræmic complication. In 1915, however, the mortality from uræmia was very greatly reduced from an average during the from this cause during the present year by early and repeated injection of alkalies, to be described immediately, shows that it is really largely an acidosis, as first suggested by Sellards.

Pneumonia.—Wall in 1891 in his book on cholera laid stress on pneumonia as a frequently fatal late complication, and I described the clinical characters of the disease and pointed out its very serious nature in my work on cholera. Major E. D. W. Greig, I.M.S.,[7] working in my laboratory, has since demonstrated the cholera bacillus in the pneumonic lesions in several of my fatal cases, showing that this complication is essentially a septicæmic manifestation of the disease occurring in very

severe cases. During the last four years it has caused 1·9 per cent. of the mortality, or about one-tenth of the whole.

Cardiac failure and exhaustion, without actual collapse or uræmia, caused 1 per cent. of the mortality.

Of the remaining fatalities several were due to low septic conditions sometimes following bed-sores, and in one case a bullet wound received before the attack of cholera, while one patient died from tetanus after a subcutaneous injection of sodium bicarbonate, the solution of which could not be sterilised by heat on account of the chemical changes which result. The difficulty has been got over by sterilising the powders before adding them to the boiled saline solution. The acidosis, which will be shown in the next section to be a most important feature of cholera, appears to greatly predispose to septic infections.

Hyperpyrexia following intravenous injections accounted for four deaths. As I have previously shown,[8] this was a much more frequent cause of death in the reaction stage of cholera among Europeans in Calcutta before intravenous injections were used, but it is now a rare complication, which can nearly always be prevented by means of the measures recommended in my book.

Alkalies in the Prevention of Post-choleraic Uræmia.

Since the death-rate during the collapse stage has been so enormously reduced by the hypertonic treatment (the mortality in patients admitted in a collapsed condition having early in my work been reduced to one-seventh of the former rate), post-choleraic uræmia has become the most frequent cause of death, and one which until recently has been most difficult to combat. I have long recognised that this form of uræmia is much more toxic and rapidly fatal than that of Bright's disease or obstruction of the urinary passages, such as of the ureters. In 1910 Dr. A. W. Sellards, working in the Philippine Islands,[9] found that very large quantities of alkalies may be given by mouth in choleraic uræmia without making the urine alkaline, and he suggested an acidosis as the cause of the trouble, although he has not recorded any direct estimations of the alkalinity of the blood in any of his papers which I have seen. Major Megaw, when in charge of the Calcutta cholera wards during my absence on leave in 1911, tried sodium bicarbonate intravenously for post-choleraic uræmia as advised by Sellards, but with little effect beyond prolonging life somewhat, the cases often having been admitted too late. From 1912 to 1914 I gave large doses of alkalinity-increasing drugs by the mouth as a routine measure from early in the disease, but without any material effect on the percentage of deaths from uræmia, as shown by the figures in Table II. The rate varies somewhat from year to year, chiefly in relationship to the number of late admissions. In May, 1914, my friend Captain J. A. Shorten, I.M.S., acting professor of physiology, Calcutta, at my suggestion collaborated with me in making a series of estimations of the alkalinity of the blood by Sir Almroth Wright's method in cholera cases in my ward, and the results proved to be most interesting and important. They have been published in the April, 1915, number of the *Indian Journal of Medical Research*.[10] Unfortunately, soon after the outbreak of the war Captain Shorten was transferred, but Dr. Satish Chandra Banerjee, assistant professor of physiology, Calcutta Medical College, has very kindly continued the work, and I am much indebted to him for his careful estimations. In the meantime Sellards has recorded[11] a great reduction in the death-rate from uræmia after cholera by the use of bicarbonate of soda in a very similar manner to that which I had adopted before I saw his recent paper. He there records 78 cases treated with a neutral solution with 12 deaths from uræmia and 49 deaths from all causes; and 77 treated with an alkaline solution with only one death from uræmia and 32 from all causes, which is still twice as high a mortality as in my Calcutta series for the present year.

The Frequency and Degree of the Reduction of the Alkalinity of the Blood in Cholera and its Relationship to Uræmia.

In the paper already referred to Captain Shorten and I recorded alkalinity observations in 20 cases of cholera, and showed that, except in the mildest cases not requiring transfusion, it was always reduced much in proportion to the severity of the disease, while in fatal uræmic cases the extremely low figures of from N/100 to N/240 were found. Since that time similar observations have been made in 42 more cases, and the results obtained in the whole 62 are summarised in Table IV. so as to bring out the essential features. They relate to the condition of the blood before the injection of any alkalies, so they well illustrate the marked and almost constant reduction in the alkalinity in all the stages of the disease. The causes of death in the fatal cases are also shown. Taking the normal alkalinity as from N/35 to N/45, only 4, or 6·4 per cent., showed a normal alkalinity. Three of these were mild cases not requiring transfusion, and the fourth an old man aged 62, who died from collapse early in the course of the disease. In 15 cases, or 24·2 per cent., the alkalinity was under N/45 but over N/60, showing a well-marked but fairly moderate degree of reduction. Only 3, or one-fifth, of these proved fatal, 2 from collapse and 1 from exhaustion after premature delivery.

TABLE IV.—*The Alkalinity of the Blood in Cholera.*

Alkalinity.	Recovered.	Died from—			Total deaths.	Total cases.	Mortality.	Percentage.
		Collapse.	Uræmia.	Other causes.				
N/35 to N/45	3	1	—	—	1	4	25%	6·4
N/45 to N/60	12	2	—	1	3	15	20%	24·2
N/60 to N/80	18	3	—	3	6	24	25%	38·7
N/80 to N/100	8	3	—	1	4	12	33%	19·4
N/100 and over	2	—	5	—	5	7	71%	11·3

This leaves no less than 69·4 per cent. of the cases in which the alkalinity was reduced to N/60 or less. Of these, 36, or 58 per cent., showed alkalinities of from N/60 to not below N/100, of which 33 per cent. died from either collapse or some complication, chiefly pneumonia, all having been admitted in the collapse stage. In the bottom line of the table are shown the cases with alkalinities of the extreme degree of reduction to from N/100 to N/240, and five out of the seven died from uræmia—a most significant fact, and one which entirely confirms, by accurate observations on the alkalinity of the blood, the surmise of Sellards, derived from the large amounts of alkalies which could be given to cholera patients without rendering the urine alkaline—namely, that post-choleraic uræmia is essentially an acidosis. The two cases who recovered from this dangerously low alkalinity each received 320 grains of sodium bicarbonate intravenously.

The Preventive Treatment of Post-choleraic Uræmia.

The first series of alkalinity estimations made by Captain Shorten in conjunction with me established the constancy of a marked degree of reduction in all severe cases of cholera, and that once the extremely low figure of N/100 or more had been reached, and uræmic symptoms had developed, it was too late to save the patient. The obvious indication was that steps should be taken early in the disease to prevent an extreme degree of diminished alkalinity occurring. I therefore commenced the following addition to the routine treatment with hypertonic salines and permanganates. In patients admitted within the first day or two of the disease without prolonged suppression of urine, the ordinary hypertonic saline was used for the first transfusion. In all cases requiring a second injection, as well as from the first in all patients admitted late with deficient urinary secretion, one pint was injected containing 60 grains of sodium chloride and 160 grains (2 per cent.) of sodium bicarbonate, and the transfusion continued with hypertonic saline up to the required total amount as judged by the specific gravity of the blood. (See my book on cholera for details of the former routine treatment which are too lengthy to give here.) The same procedure was repeated at each subsequent intravenous injection, while when the indications formerly were for normal saline subcutaneously, the above combination of sodium chloride and sodium bicarbonate was used. The amounts of sodium bicarbonate injected in different cases in this manner varied from 160 grains up to 1120 grains in those who recovered, while in no less than five successful cases 800 or more grains were injected before free secretion of urine was obtained.

The results have been most striking, as shown by the figures in Table III., from which it will be seen that an average mortality of 11·1 per cent. from uræmia from 1912 to 1914 has been reduced during the present year to 3·4 per cent., or 5 cases among 145 admissions. Moreover, no less than three of the five had been admitted from two to six days after the commencement of the disease with uræmic symptoms already established, when it is usually too late to save the patient. If these results are confirmed by further experience the greatest remaining danger of cholera will have been largely overcome.

In some cases of threatened post-choleraic uræmia, after very little urine has been passed for several days, free secretion becomes re-established, but the patient remains in a very low condition, bed-sores and boils develop, and he ultimately succumbs. I have now found that this condition is also one of acidosis with very great reduction of the alkalinity of the blood. Recently two such cases have recovered after repeated intravenous and subcutaneous injections of 2 per cent. sodium bicarbonate, although I had never previously succeeded in saving such a patient.

Atropine in Cholera.

Sir Lauder Brunton[19] has advised the use of atropine in cholera on the ground that it antagonises the symptoms of muscarine poisoning, which resemble to a considerable degree those of cholera, and he has recorded one case in which it appeared to do good. This drug has also been advocated for the prevention of sea-sickness, so might be of use in lessening the vomiting in cholera. I therefore decided to administer it hypodermically in doses of one-hundredth of a grain morning and evening in adults during the acute stages of cholera, and to give it as far as possible in alternate cases so as to have an equal number of controls during the same season of the year, as the mortality varies in different seasons, as I have shown in my book.

I have now completed 75 cases in which the drug was used with an equal number of controls, and the results are given in Table V., together with the causes of death in the fatal cases.

TABLE V.—*Atropine Hypodermically in Cholera.*

—	Recovered	Died from—			Total deaths.	Total cases.	Deaths %
		Collapse.	Uræmia.	Other causes.			
Atropine	67	3	2	3	8	75	10·7
No atropine ...	57	9	3	6	18	75	24·0

The results so far confirm Sir Lauder Brunton's suggestion on physiological grounds, for the death-rate in the atropine cases has been but 10·7 per cent., against 24 per cent. in the controls. On analysing the fatal cases I find that there were a larger proportion of complicated cases in the control series, while the uræmic cases are as equally divided as such a small, uneven number of cases permit. On the other hand, there were three times as many deaths from collapse among controls as among the atropine cases, which is most promising. The trial will be continued, and if anything like as favourable results are obtained in the future an additional drug of value in the treatment of cholera will have been established.

Conclusion.

The limits of space have precluded more than a very brief analysis of the more important results obtained in my cholera wards during the past four years, based on the careful notes which have been kept by the following house physicians, to whom I am much indebted for their arduous and careful labours day and night, practically all the intravenous injections having been given by them—namely, Dr. Khitendra Nath Ghose, Dr. Suresh Chandra Mozumdra, Dr. Hemendra Nath Baksi, Dr. Akil Ranjan Mozumdra, and Dr. Bejoy Chandra Mukerjee.

I venture to think that the large number of cases which have been treated in the cholera wards of the Calcutta Medical College Hospital during the last eight years with steadily improving results, and the confirmation of my methods from various countries, now suffice to place them on a firm basis, and that it may fairly be claimed that the mortality of this terrible disease can be reduced to about 20 per cent., or one-third of the former rate, and still lower in patients under 50 years of age, whenever the circumstances allow of the simple operation of transfusion being carried out. Only those who have practical acquaintance with the disease can fully realise what this advance really means, for in the endemic areas cholera is dreaded more than other diseases, even by Europeans. The immediate relief afforded by the injections to the terrible cramps and restlessness of the collapse stage must be seen to be appreciated, while even in the few cases where life is not saved the sufferings are vastly alleviated. Now that the danger of uræmia can be so largely prevented in cases coming under observation within the first day or two, cholera has certainly been robbed of

three-fourths of its terrors; and all this has been accomplished by prolonged research (extending over ten years) on physiological lines without the aid of any specific bacterial or medicinal agent.

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Calcutta.

REMOVAL OF A SHRAPNEL TIME-FUSE FROM THE LEFT SHOULDER:

DESCRIPTION OF A SPLINT.

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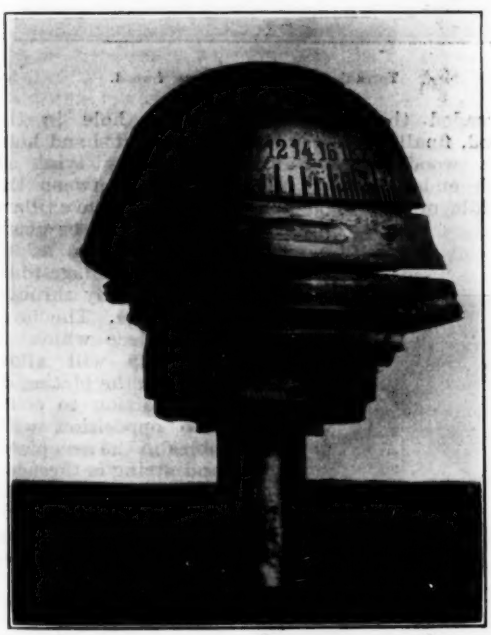
IN removing foreign bodies from various parts of the body I have often noticed the rarity of finding a piece of shell of any considerable size. Quite large wounds may be caused by a projectile of astonishingly small dimensions. Before this case the largest piece of shell I have removed had penetrated the knee-joint, completely severing the internal condyle of the femur from the rest of the bone. In this case the portion of shell did not measure one cubic inch. The lodgment of a complete shrapnel time-fuse in almost perfect condition is an event of such rare occurrence that it seems to be worth while placing it on record.

FIG. 1.



Time-fuse removed from wound of shoulder (actual size).

The patient was wounded on May 25th at about 2.30 P.M. He is a stretcher bearer, and was going up to the trenches to collect wounded. He advanced to within about four yards of his destination when he heard the shriek of a shell approaching. He turned his back on the trenches and almost immediately felt a severe blow on the back of the left shoulder. The blow did not knock him down, but caused him to stagger. He reached a ditch about 100 yards away, where he fell down, and in about 20 minutes was removed to the dressing station, where his wound was dressed and painted with iodine. That night he was taken to the clearing station, where under an anæsthetic a tube was inserted. On the following day he was sent to another clearing station and then despatched on the train, arriving at a general hospital at the base three days after the reception of the original injury.

On admission the patient was in considerable pain, much more so than is usually the case. There was a wound over the posterior border of the deltoid about 1½ inches long, through which a tube had been inserted. The other end of the tube appeared through a much smaller wound situated over the pectoro-deltoid interval. This wound looked like an operation incision, and, the patient thinks, was not caused by the original injury.

Owing to the severity of the pain he was taken to the theatre almost immediately. On inserting my finger into the posterior wound I encountered a round smooth object which for the moment I thought was the head of the humerus, dislocated and externally rotated. On retracting the edges of the wound I saw the piece of brass at the top of the round part of the time-fuse, and immediately recognised the cause of the trouble. The fuse was tightly impacted and the greatest convexity was situated about ¾ inch from the surface. The wound had to be enlarged considerably to allow of removal, which was accomplished without difficulty. There was a comminuted fracture of the humerus below the surgical neck; some loose fragments of bone were removed, and the sharp-pointed ends of the upper and lower fragments were excised with bone-cutting forceps; drainage was provided for.

The fuse was lying with the stem against the bone. The fracture, though a severe one, was not nearly so comminuted as that caused by many a smaller piece of shell. On removal there were septic pieces of muscle attached in the cracks of the split metal and the odour was most revolting.

FIG. 2.

Another view of same.

Figs. 1 and 2 show two views of the specimen in nearly perfect condition. The stem of the fuse was lying nearly horizontal, with a slight inclination downwards. I suspected that the injury was due to

FIG. 3.

Showing the thoracic, arm, and forearm pieces of the splint, with the piece of wood securing rigidity.

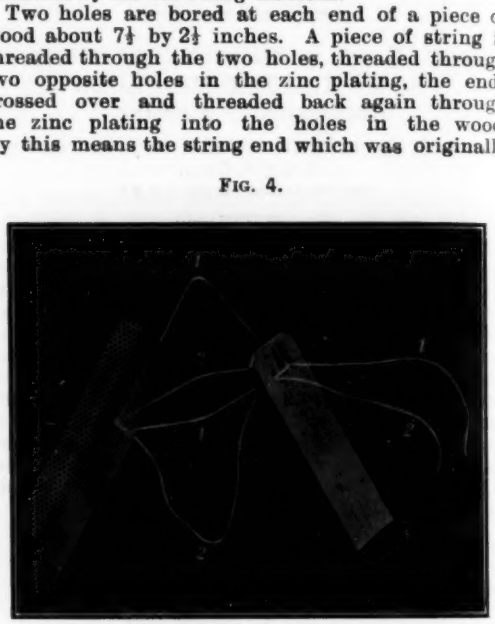
a ricochet, but on questioning the patient afterwards he was unable to throw any light on this question. The weight of the fuse is 10 ounces.

In the treatment of compound fractures of the upper end of the humerus due to projectiles two difficulties are encountered: (1) the application of a retentive apparatus; and (2) the dressing of a wound without it being necessary to remove the splint. For fractures below the shoulder the modified Thomas's splint is excellent and fulfils both these requirements, at the same time allowing the lower fragment to be placed in any degree of abduction necessary. It is, unfortunately, not applicable to wounds high up, as the circular band interferes with the dressing. In order to obviate this a splint of the Thomas's variety, but modified I believe by Mr. Robert Jones, has been supplied, with the upper collar so made that it fits closely to the neck and so gives access to the wound. The one drawback to this splint is that it is impossible to abduct the lower fragment and at the same time to prevent internal rotation.

In order to obviate these difficulties I have adopted the following plan. A piece of perforated zinc plating, measuring 23 by 8½ inches and supplied in the army fracture boxes, is cut for about 1½ inches, on both sides and in two places, one about 7½ inches from the end of the plate, and the second about 6 inches from the other end. The plate so cut is bent as shown in Fig. 3, so that a thoracic piece, arm piece, and forearm piece are formed. The position of the actual cuts should be determined roughly by the dimensions of the patient. The cuts are easily made by any strong pair of shears, such as plaster-of-Paris shears or even a strong pair of scissors. The very flexible plating is now moulded to the shape of the parts to which it is to be applied, and is cut away where it interferes with the subsequent dressing. The sharp corners are rounded off, and rigidity is obtained by the following methods.

Two holes are bored at each end of a piece of wood about 7½ by 2½ inches. A piece of string is threaded through the two holes, threaded through two opposite holes in the zinc plating, the ends crossed over and threaded back again through the zinc plating into the holes in the wood. By this means the string end which was originally

FIG. 4.

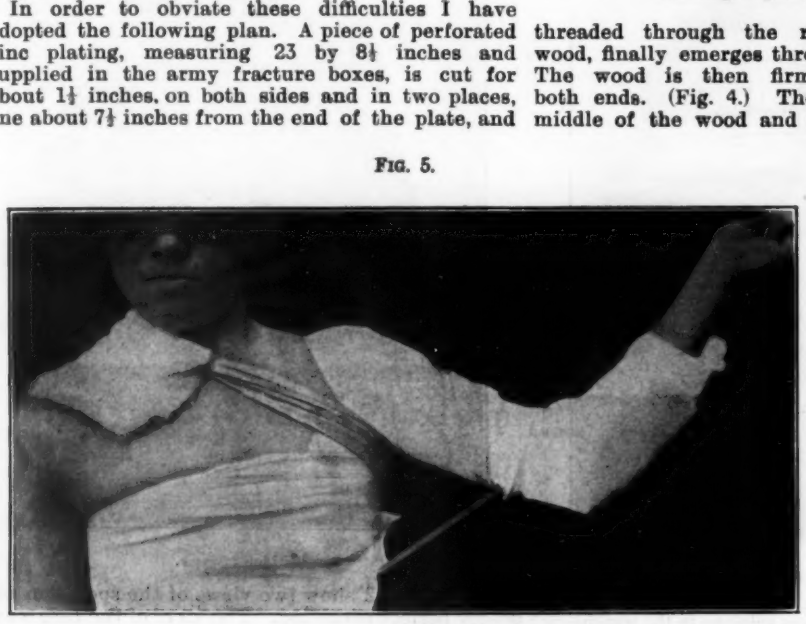


Threading the plate and piece of wood.

threaded through the right-hand hole in the wood, finally emerges through the left-hand hole. The wood is then firmly fixed by tying at both ends. (Fig. 4.) The distance between the middle of the wood and the apex of the axillary piece should be about 4 inches, so as to allow a bandage to be passed easily through this space. The forearm piece which is bent up will allow holes in the plating of this portion to come into opposition with holes in the arm piece, and string is threaded through in precisely the same way as described above, on each side, in order to secure rigidity between the two pieces.

The thoracic piece should be bandaged to the chest separately, and before starting to bandage the arm. The

FIG. 5.



A patient with the splint applied.

arm is bandaged over the highest point of the shoulder and under the axillary piece, and then down the arm and forearm. In dressing the case it is only the latter bandage that is removed; the bandage fixing the thoracic piece to the chest keeps the splint in position while the dressing is carried out. Extra security can be obtained by passing a triangular bandage under the axillary piece and tying over the shoulder of the opposite side, as shown in Fig. 5.

I have now used this splint on 12 cases and have found it very satisfactory. It is easily applied while the patient is under the anæsthetic, and takes about 15 to 20 minutes to complete. By making each splint at the time of operation the individual requirements of a particular case are catered for. After the operation the patient is quite comfortable, rigidity is adequate, and subsequent dressings are much facilitated.

PERSISTENCE OF ANTIBODIES IN THE BLOOD OF INOCULATED PERSONS AS ESTIMATED BY AGGLUTINATION TESTS.[1]

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(*From the Laboratory of the British Red Cross Hospital No. 4:* Sir HENRY NORMAN'S.)

IN the course of work carried out recently in the British Red Cross Hospital No. 4 by the kind invitation of Sir Henry Norman, Bart., M.P., to whose hospitality we were entirely indebted, and who fitted up a laboratory expressly for the purpose, we investigated the agglutinin content of the blood in a number of normal inoculated persons. Our work was facilitated, and in fact only made possible, by the kindness of Colonel Sir William Leishman, F.R.S., and Lieutenant-Colonel Evans, C.O., 14th Stationary Hospital, who with his staff generously placed at our disposal the extensive material at their command.

All the normal individuals examined (officers and privates, nurses, and Red Cross orderlies) had received one or two doses of army typhoid vaccine within the period from August, 1914, to the end of March, 1915. The agglutination tests were carried out in the course of the last ten days of April. The method employed was that already fully described elsewhere by one of us (G. D.[2 3]), and the use of standardised agglutinable cultures rendered the results obtained entirely comparable.

To facilitate the survey of these results they are arranged in the accompanying table in four groups:—

Group I. contains persons *not* previously inoculated, who received two doses of vaccine with an interval of about ten days between the doses.

Group II. contains the persons who had previously been inoculated (within the preceding six years), and who on this occasion received two doses of vaccine with an interval of about ten days between the doses.

Group III. comprises persons not previously inoculated who received only a single dose of vaccine.

Group IV. consists of persons previously inoculated (within the last six years) who received on this occasion only a single dose of vaccine.

The table gives all essential details. Two different standard agglutinable cultures were used in the course of the work, and the final results are stated in terms of the standard agglutinin unit.

Results of Agglutination Tests.

Number.	Reference number.	Date of inoculation.	Serum dilution 1 in —	Standard agglutinin units per c.c. of serum.
		Group I.		
1	1	Sept., 1914.	375	150
2	2	,,	375	70
3	3	Oct., 1914.	7500	1390
4	7	,,	1875	750
5	8	,,	875	350
6	6	,,	1875	348
7	5	,,	700	130
8	4	,,	375	70
9	20	Nov., 1914.	3125	580
10	21	,,	3125	580
11	12	,,	750	300
12	26	,,	750	300
13	25	,,	1500	278
14	22	,,	875	162
15	9	,,	375	150
16	15	,,	750	139
17	17	,,	750	139
18	24	,,	730	135
19	14	,,	330	61
20	16	,,	330	61
21	23	,,	330	61
22	13	,,	320	59
23	11	,,	90	36
24	18	,,	90	35
25	19	,,	190	35
26	10	,,	75	30
27	43	Dec., 1914.	7500	1390
28	42	,,	3125	580
29	44	,,	1500	278
30	41	,,	1500	278
31	36	,,	1500	278
32	34	,,	1500	278
33	38	,,	875	162
34	39	,,	750	139
35	40	,,	750	139
36	35	,,	750	139
37	33	,,	750	139
38	29	,,	750	139
39	30	Dec., 1914.	750	139
40	44*a*	,,	190	76
41	37	,,	375	70
42	31	,,	360	67
43	32	,,	360	67
44	27	,,	150	60
45	28	,,	90	36
46	48	Jan., 1915.	875	162
47	49	,,	190	76
48	47	,,	330	61
49	46	,,	320	59
50	50	,,	90	36
51	45	,,	190	35
52	51	Feb., 1915.	750	300
53	52	,,	190	76
54	53	,,	150	60
55	55	March, 1915.	3750	1500
56	54	,,	1500	278
		Group II.		
57	56	Nov., 1914.	1875	348
58	57	,,	750	139
59	59	,,	750	139
60	60	,,	700	130
61	58	,,	330	61
62	61	Jan., 1915.	330	132
		Group III.		
63	65	Sept., 1914.	140	56
64	62	,,	90	36
65	63	,,	90	36
66	64	,,	90	36
67	66	Oct., 1914.	190	76
68	68	Feb., 1915.	375	150
69	67	,,	150	60
70	70	March, 1915.	3125	1250
71	69	,,	1500	600
		Group IV.		
72	71	Aug., 1914.	1500	600
73	72	,,	750	300
74	73	,,	75	30

The importance of the latter method of expressing results is well brought out in the present series of observations, since with different standard agglutinable cultures agglutination in the same serum dilution does not necessarily imply the presence of the same number of standard agglutinin units in the serum. For owing to the different agglutinability of different cultures each standard agglutinable culture has its own particular reduction factor for calculating the number of standard agglutinin units in any given serum tested. This unit was

[1] The expenses of this work have been defrayed out of a grant received from the National Medical Research Committee.

[2] Dreyer, Georges: Widal's Reaction with Sterilised Cultures. Hospitalstidende, No. 19, 1906, and Journal of Pathology and Bacteriology, vol. xiii., 1909.

[3] Dreyer, Georges; Walker, E. W. Ainley; and Gibson, A. G.: Typhoid and Paratyphoid Infection in Relation to Antityphoid Inoculation, THE LANCET, Feb. 13th, 1915.

originally fixed arbitrarily as the amount of agglutinating serum which, when made up to 1 c.c. volume with normal saline solution, caused standard agglutination on being mixed with 1·5 c.c. of a particular (original) standard agglutinable culture and maintained at 55° C. for two hours in a water-bath followed by 15 minutes at the room temperature.

Standard agglutination is the highest dilution in which a given serum causes marked agglutination (without sedimentation) visible to the naked eye. And it follows from what has just been said that if standard agglutination occurs in a serum dilution of 1 in 1000, say, then 1000 divided by the reduction factor for the particular standard agglutinable culture employed gives the number of standard agglutinin units per c.c. of the serum. For the two standard agglutinable cultures used in these experiments the reduction factors were 2·5 and 5·4 respectively.

The points which we wish to bring out from the table are the following:—

1. For at least eight months after a single or double dose of typhoid vaccine the serum of every inoculated person contained relatively large quantities of antibodies—viz., agglutinins.

2. The maximum content of agglutinin per c.c. of serum found in any inoculated person was 1500 standard agglutinin units; and no inoculated person showed less than 30 units per c.c. of his serum. On the other hand, it may be mentioned that in no case of 30 persons examined at different times and places has the serum of non-inoculated individuals, who had not had typhoid fever, ever exhibited an agglutinin content reaching 10 units per c.c. of serum.

3. Just over half the persons examined between four and six months after inoculation showed an agglutinin content of 130 units or more per c.c. of serum.

4. Persons who received two doses of vaccine usually, but not always, exhibited a higher agglutinin titre than those who had only one dose.

5. Although the titre of the serum in persons who had not been inoculated before, and only received a single dose of vaccine, may in some instances at first be as high as or even higher than that of those who received two doses, it was found that after a certain lapse of time it falls to a lower level than in the latter individuals. This point is of interest and corresponds exactly to what one found to be the case in comparing the agglutinin curves of persons who had suffered from relapse in typhoid fever with those in which no relapse had taken place. In the former the agglutinin titre remained for a long period at a higher level than in the latter.

6. In persons who had been inoculated before (within six years) the agglutinin titre maintained a high level for a longer period than in the case of those not previously inoculated.

7. The importance of repeated inoculation is therefore clearly not so much that it induces of necessity a higher initial immunity, but that it ensures with certainty a more persistent one. This is seen at once on comparing Group IV. with Group I.

8. If the individual observations in the different groups be divided into sub-groups according to the length of time since inoculation, and the figures averaged for each sub-group, it can be seen that the gradual fall in agglutinin titre which occurs as time elapses can be plotted in a curve. This curve is closely similar to the ordinary agglutinin curve of an inoculated experimental animal.

In investigating the material then available Leishman [4] came to the conclusion (1914) that after a double dose of typhoid vaccine an increased resistance to infection for a period up to 18 months or two years could be proved statistically. This conclusion is fully borne out by the results we have obtained. Our results show further that the persistence of agglutinins in the blood endures for much longer periods than has usually been recognised.

THE VALUE OF TURPENTINE AS A HÆMOSTATIC.

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I HAVE been led to add my testimony to this matter by the timely note on "The Therapeutic Uses of Turpentine" published in a recent number of THE LANCET.

My attention was first drawn to the subject by a story which I heard in my student days. A young and enthusiastic surgeon unwittingly excised the elbow-joint in a "bleeder." The hæmorrhage was severe and long-continued, and resisted all efforts to control it. When the patient was at death's door and the surgeon driven to distraction a friendly colleague offered to take charge of the case. The wound was packed with gauze soaked in turpentine, and from that time onwards there was no further hæmorrhage. This story has stood me in good stead, for on many occasions I have proved the efficacy of the same remedy. But it is essential that it should be properly used, and of this I had a recent striking example:—

A boy aged 8, the subject of hæmophilia, was admitted to the wards with which I am associated. All ordinary means had failed to staunch severe and persistent hæmorrhage from a small wound of the palm, and I gave directions that turpentine should be used. Next day I was informed that the bleeding had not ceased. On investigating the matter I found that a piece of gauze had simply been soaked in turpentine and laid over the wound like an ordinary dressing. The only result was a rather extensive blister. As the condition of the boy was alarming and the bleeding still continued I made a graduated compress of lint soaked in turpentine and squeezed nearly dry. This was supported by a pad of wood-wool and with a firm bandage fixed in position and not disturbed for several days, with the result that there was no further hæmorrhage and no trouble from the blister.

The principal sphere of turpentine as a hæmostatic is in cases of secondary hæmorrhage, and there can be no better illustrations than the sort of cases met with in the general hospitals of this country as the result of the war. It has several times been successful when it looked as though the ligature of one of the main vessels of a limb in continuity or even amputation would be called for. A recent example illustrates this very well:—

Private K. of the 1st Coldstreams was wounded in France, a bullet passing through the front of the right leg and finding an exit just above and behind the external malleolus. He was admitted to the 1st Northern General Hospital six days later. He was then anæmic and ill, with a temperature of 101° F. and a quick, small pulse. The wounds of entrance and exit were small, but the whole of the limb was much swollen and greatly discoloured, while some thin, brownish, foul-smelling

[4] Colonel Sir William Leishman: Antityphoid Inoculation, Journal of the Royal Army Medical Corps, vol. xxii., 1914.

pus escaped from the anterior wound. It looked the very case in which emphysematous gangrene might develop, and in fact it only lacked crepitation to make the picture complete. Under a general anæsthetic a long incision was made over the tibia through the entrance wound. The bone was very much comminuted and lay in a mess of lacerated tissues, blood clot, and stinking débris. All loose and dead pieces were removed, though some bone fragments were not interfered with because, though loose, they still appeared to retain some vitality and likely to prove useful in the process of ultimate healing. There was some hæmorrhage, but it was not severe and was easily controlled by packing with iodoform gauze.

During the next few days the patient was better, but the temperature kept between 101° and 102°. On the morning of the fifth day there was a little hæmorrhage, which the sister controlled by repacking the wound. Twenty-four hours later there was a severe hæmorrhage in the early hours of the morning. The orderly officer repacked the wound with gauze soaked in turpentine, but the clots were not removed, and when I saw him about 10 A.M. the hæmorrhage was still going on and the patient had suffered severely from the loss. After the application of a tourniquet he was taken to the theatre and anæsthetised. The packing simply lay on the top of the blood clots, and after its extraction a large sharp spoon was used and the whole of the cavity thoroughly cleared of blood clot and sloughs. After removal of the tourniquet the hæmorrhage was free, but no one vessel that could be tied was seen, and the cavity was therefore firmly packed with strips of lint soaked in turpentine and squeezed dry. After this the hæmorrhage did not recur and the cavity soon became filled with healthy granulations, and the progress of the patient towards recovery has been satisfactory.

At the present time the sequestra which were predicted have been removed; the bone has united and regenerated; and so far as can be seen the patient will have an exceedingly useful limb.

As this case shows, it is no use applying the turpentine until the area to be treated has been thoroughly freed of blood clot and débris, and though it is not always necessary to use an anæsthetic for this purpose it is usually wiser to do so.

Of course, when dealing with areas in which there are large vessels an attempt must always be made to secure both ends of the vessel in the wound according to the well-established rules for the treatment of secondary hæmorrhage, but turpentine is especially valuable in those cases in which no bleeding point can be caught but in which the hæmorrhage is nevertheless alarming. I would specially instance cases of septic compound fracture like the one just quoted; necrosis of the long bones; hæmorrhage in association with phlegmon of the palm after amputation of septic fingers; or in association with sloughing wounds of any part of the extremities. But its use is not limited to the limbs, and I have used it successfully for secondary hæmorrhage in cases of appendicitis, in hæmorrhage following suprapubic prostatectomy and after vaginal hysterectomy, while for bleeding from a tooth socket I know of nothing that is its equal.

Turpentine is an antiseptic, and gauze saturated with it keeps wonderfully sweet; while by its action on the living tissues it gives rise to a slimy pus which greatly facilitates the removal of the gauze in the course of 48 hours. The only local inconvenience to which it may give rise is some blistering of the skin, which need not occur if care is exercised in its application.

Though secondary hæmorrhage furnishes its greatest sphere of usefulness, it may also be of great help in primary hæmorrhage, as in the following instance:—

Private A. of the 1st South Wales Borderers was wounded at La Bassée, a bullet passing through the upper part of the leg, trephining the tibia and finding an exit through the calf. At first there was a large extravasation up and down the whole of the back of the leg, but this gradually became localised to the region of the exit wound, where a traumatic aneurysm of the size of a cricket-ball developed. Using a tourniquet, I cut down on this swelling and, after turning out the clots, exposed a smooth-walled cavity in the floor of which I expected to find the posterior tibial artery. Although I caught several points, the hæmorrhage when the tourniquet was released was so free as to be alarming, and I never succeeded in catching any vessel of sufficient size to diminish the flow of blood. The cavity was accordingly packed and the tourniquet reapplied. The patient was turned on to his back and the femoral artery ligatured in Hunter's canal. I then removed the packing in the confident expectation that the hæmorrhage would have ceased, but to my great astonishment, though diminished by half, it was still alarming, and especially so in view of the condition which the patient had reached at this stage of the operation. The blood welled up from the very depths of the cavity, and whenever the gauze was removed the swish of a spouting artery could be distinctly heard though no vessel was seen. It occurred to me that the bleeding might come from an especially large nutrient artery to the tibia or from the anterior tibial, the blood finding its way through the hole in the bone, but the patient was too ill to tempt me to cut down on the latter from the front. Gauze packing scarcely sufficed to stay the stream and the plugs rapidly became saturated with blood, so I packed the hole in the tibia and the immediate vicinity with strips of lint soaked with turpentine, the more superficial parts being filled with iodoform gauze. This was entirely successful. There was no further anxiety from hæmorrhage, and the patient's recovery was satisfactory so far as the treatment of the aneurysm was concerned.

Of the value of turpentine as a hæmostatic when taken by the mouth I am more than doubtful, although I do not feel that I ought to speak dogmatically, because I may not have given it in sufficiently large doses or sufficiently often. Knowing the necessity of bringing it into immediate contact with the bleeding surface, I should not expect it to be very successful when administered internally.

Newcastle-upon-Tyne.

THE SIGNIFICATION OF ACETONE BODIES IN THE URINE.

BY BENJAMIN DERHAM, M.D., M.CH. R.U.I.

THE imposing advance that has been made of recent years in the study of the phenomena of diabetes is a source of much gratification to the patient student of disease. The successive discovery in the urine of diabetic subjects of acetone, aceto-acetic acid, and oxybutyric acid, all seemingly derivatives of the associated sugar, suggested at an early period that these various acids were the true toxic agents circulating in the blood. To this was added the further discovery that the alimentary sugar circulating in the blood was not the only source of these acid bodies, but that the proteid elements of the cells and tissues themselves, and probably the fats also, could under the stress of a perverted metabolism furnish the same morbid constituents in large quantities. The ground seemed to be cleared for a wide generalisation. We were no longer content with the recognition of a glycosuria, nor even of an acetonæmia, but our diagnostic acumen was gratified by the fascinating conception of an acidosis; of an acid torrent pouring into the blood stream, seriously reducing its alkalinity, and maintained by a myriad rills having their fountain in every cell and tissue of the body. As we all know, this doctrine of an

acidosis has now received an extension far beyond the limits of its original application, and is very commonly employed to explain the mysteries of many obscure maladies.

The diagnosis of an acidosis is with many the "Open Sesame!" which flings wide open the portals of Nature's hidden chambers, and reveals her most intimate arcana. In my opinion, theory and speculation are fast outstripping facts in this matter, and we are erecting upon an inadequate basis a superstructure which the foundation cannot entirely support. When one comes to examine the supposed unassailable ground upon which many a diagnosis of an acidosis is founded, it will be discovered to consist almost solely in the report that acetone has been detected in the urine in considerable quantities, but significantly no sugar. This seems to me an entirely inadequate reason, because it presupposes that the only source of acetone bodies in the urine is a perverted metabolism of the cells and tissues of the body. Perceiving the possibility that this might be a fallacious and misleading assumption, I have made it a practice for some time to make a routine examination of the urine of almost every patient who presented himself for treatment, expressly with a view to ascertaining the presence or absence of acetone bodies. As a result of this routine practice I have made some interesting observations, and it has been borne in upon me that the sole reason why we do not recognise the presence of at least one of these bodies in the urine, in a very considerable percentage of cases which do not otherwise incur suspicion, is either that we do not look for them, or that the tests as usually employed are not sufficiently delicate for the purpose. The following cases are fairly typical of a considerable number.

Two healthy children, brother and sister, 7 and 5 years of age respectively, were presented on Easter Monday with a large Easter egg apiece, composed of sugar and chocolate cream. These were promptly consumed very much to their own satisfaction, but to the consternation of their parents. Being promised a treat in the country on the following Wednesday, the children were so excited that they could eat no dinner, but after romping about in the fields under a singularly hot sun considering the season, they consumed, with what seemed to the mother a most voracious appetite, an abundant tea, comprising fish, bread-and-butter, and sweet cakes, finishing up with stewed rhubarb, cream, and sugar. Both children were a little languid on the Thursday, but on the Friday the boy was indisposed, with feverishness and headache, some nausea and vomiting, colicky pains in the bowels, and a little diarrhœa. The indisposition of the boy did not occasion much concern to the parents, but on the Saturday the little girl also was taken ill with headache, sickness, less fever than the brother, but with much prostration. My services being invoked in the case of the little girl, I instituted the usual routine examination of the urine, and quickly detected the presence of considerable quantities of aceto-acetic acid and no sugar. When I was informed of the indisposition of the boy, my curiosity being now piqued, I asked for a specimen of his urine also, and made the same discovery. In neither case did the acid persist long in the urine; but in the boy it disappeared spontaneously in a few days, whereas in the girl its departure seemed to be promoted by the administration of a grain or two of calomel and some salol powders.

In these two cases, which are fairly characteristic of others which have come under my observation, my own conviction is that a perverted metabolism had nothing to do with the production of the aceto-acetic acid and its excretion in the urine, but that the seat of its manufacture was the intestinal canal, and its cause an unhealthy and irregular fermentation of the sugars and starches contained therein. It may be urged that no known form of indigestion and intestinal fermentation of starches, sugars, and so on, has been proved to be the cause, or the forerunner, of the appearance of this abnormal acid in the urine. It is certainly much easier to imagine the correctness of this hypothesis than to accept the alternative, that a profound disturbance of the metabolism of the body cells, which must almost certainly from its nature be chronic and persisting, should be invoked to explain the transient appearance of the aceto-acetic acid in the urine of an otherwise healthy patient.

Having regard to the chemical constitution and affinities of aceto-acetic acid, there is no obvious reason why it should not be produced, like its congeners, by an irregular fermentation of sugars in the intestinal canal and excreted in the urine; on the contrary, the marvel is that it is not produced and excreted more frequently and in larger quantities than at present appears to be the case. But my own conviction is that, if sufficient care and diligence be employed in the investigation, the association of an acid fermentation in the intestinal canal with the subsequent appearance of aceto-acetic acid in the urine will be found to be a quite common phenomenon.

It is a legitimate subject of speculation—What rôle, if any, the aceto-acetic acid plays in the production of the patient's symptoms? It may well be that it plays no part; that it is a comparatively innocuous body, at least in the quantities present at any given moment in the blood, and that its manufacture in the intestinal canal, absorption and excretion in the urine are unimportant incidents in the course of the indisposition. But, on the other hand, it is quite possible that the absorbed acid does give rise to symptoms and does produce a veritable alimentary toxæmia which might be dignified with the title of an acidosis. But we must discriminate. Such an acidosis is trivial in its nature, transitory in its duration, quickly removed together with its cause, and has no real relation to that acid constitution of the blood, or rather diminished alkalinity, which is the product of the perverted metabolism of the cells present in such a disease as diabetes, and to which alone the title of acidosis should be restricted. A term coined to indicate the profound and sinister consequences of a vital disturbance of the cellular process of nutrition should not be employed to connote the transitory sequel of a fit of indigestion, or of some obscure but trivial microbic infection.

The general practitioner has obviously the most abundant opportunities for studying and investigating the mild type of cases which will furnish in largest quantity the evidence required to establish or confute the opinions which I have formulated. With a view to facilitating the operations of those who have not hitherto paid much attention to this part of the subject I have ventured to describe in some useful detail the tests I have myself employed in my investigations.

In the first place it should not be forgotten that the tests usually employed for acetone are also tests for aceto-acetic acid, and do, in fact, more certainly indicate the presence of the latter than the former constituent in the urine. Some convenient method, therefore, which will enable the busy practitioner speedily to distinguish between the two bodies is a desideratum, for hitherto they have been for the most part confounded together. The ferric chloride test is not satisfactory; it does

not distinguish between acetone and aceto-acetic acid, and produces a dense cloud of precipitated phosphates; it gives a seemingly characteristic but misleading reaction if the patient has been taking salicylates, aspirin, phenacetin, antipyrin, &c., which are so frequently self-administered nowadays, without the physician's knowledge or prescription; and lastly, the test is not a very delicate one, and considerable quantities of aceto-acetic acid may be present without the test affording any indication of the fact.

The test I have found most convenient as a first step of the examination is Rothera's modification of Legal's test with nitro-prusside of sodium, but I have myself introduced a slight modification of the technique which makes the test at once more expeditious and more delicate.

To 1 drachm of suspected urine in a slender test-tube add about 5 grains of chloride of ammonium (greater precision is immaterial), then 2 drops of a recently prepared 5 per cent. solution of nitro-prusside of sodium; then, holding the tube inclined at a considerable angle, with the aid of a pipette allow some 8 or 10 drops of strong ammonia, specific gravity 880, to slowly trickle down the side of the test-tube, so as to float on the surface without mixing with the urine in the tube. The faint straw colour of the urine contrasts strongly with the limpid transparency of the ammonia solution floating on its surface. If no acetone or aceto-acetic acid be present, at the conspicuously visible point of junction of the two liquids a faint, white, fleecy ring will make its appearance, which may have a slight yellowish tinge if much pigment be present in the urine. But if acetone or aceto-acetic acid be present in any quantity the ring instantly assumes a vivid crimson colour, which rapidly increases in depth and intensity.

In the presence of considerable quantities of acetone, &c., the method described has no special advantage over the test as ordinarily performed, but where only minute or even infinitesimal quantities are present, after standing for two or three minutes the crimson ring becomes a conspicuous and unmistakable signal of the presence of either acetone or aceto-acetic acid, while the test as ordinarily performed fails to announce their existence.

Unfortunately this test, though so delicate and so easily performed, does not discriminate between acetone and aceto-acetic acid. So far the chemists do not appear to have supplied us with a simple and convenient reagent which will disclose the presence of acetone merely, without reacting at the same time to aceto-acetic acid also. There are, however, one or two tests for aceto-acetic acid simple and easy of application, and possessing not only a qualitative but a quantitative character. The best perhaps is the following modification of Riegler's test, which depends upon the fact that aceto-acetic acid combines with and immobilises free iodine as a colourless compound, so that an excess of free iodine must be added to a solution containing aceto-acetic acid before a surplus is available for entering into any colour combination. As the test is a very valuable and reliable one if the technique be accurately observed, a brief explanation of its rationale will enable the investigator to avoid the single pitfall which lies in his path.

Let two drops of a 1 per cent. solution of methylene blue be added to 2 drachms of water in a test-tube. The solution should possess a sky-blue colour, such as, for example, is exhibited by Fehling's solution. Then let tincture of iodine be added drop by drop by means of a pipette, and it will be found that four drops at the most will entirely discolourise the solution, transforming the sky-blue into a pale orange.

Now, if in the place of the water we substitute normal urine, it will be found that 10, or perhaps even 12, drops of tincture of iodine will be necessary to effect the transformation of colour. There is evidently something in normal urine which fixes free iodine. This something is of the nature of an alkali and can be neutralised by adding an excess of acetic acid without otherwise interfering with the test. Therefore if to 2 drachms of normal urine be added the prescribed quantity of methylene-blue solution and 6 drops of strong acetic acid, it will be found that 4 drops of tincture of iodine will, as in the case of the pure watery solution, substitute the pale orange for the sky-blue of the methylene. Again, if acetone be added in considerable amount 4 drops of the tincture will still discolourise the solution. The acetone is evidently inert, and does not affect the test. But if aceto-acetic acid be present a very different phenomenon is presented. Drop after drop of the tincture may be added without making any impression upon the blue urinary solution, and in direct proportion to the amount of aceto-acetic acid present 30, 40, and even 60 drops of tincture of iodine may be required to effect the replacement of the one colour by the other. It is evident that this test can be used as a quantitative as well as a qualitative one, the estimate of aceto-acetic acid depending upon the quantity of tincture of iodine required to effect the discolourisation. Thus, if 30 drops of tincture of iodine are required to effect the complete transformation of the colour of the methylene blue, and since only 4 drops are normally required for this purpose, the remainder—namely, 26 drops—are plainly a measure of the aceto-acetic acid present in the sample. But there emerges at this point a possible source of fallacy which must be stated in order to be guarded against. If the discolourised urinary solution be allowed to stand for a few minutes the blue colouration gradually returns, beginning at the bottom of the test-tube. Evidently the 4 drops of the discolourising iodine slowly enter into a fresh combination and the methylene blue is restored to its pristine condition. To prevent the operation of this tendency from impairing the quantitative value of the test the tincture of iodine should be added with sufficient rapidity to anticipate this secondary change, yet not too fast, otherwise a correct estimate of the number of drops cannot be made. A rate of about one drop a second, with repeated agitation of the tube or occasional inversion with the finger over the mouth of the tube, will enable an exact estimate to be made of the number of drops of tincture of iodine required to effect the primary discolourisation. This alone is to be regarded, and the secondary return of the blue colour is to be ignored.

The absence of any expeditious and satisfactory means of effecting a separate determination of acetone loses much of its importance in view of the fact that a considerable fraction of the aceto-acetic acid present in standing urine undergoes a slow but accelerating transformation into acetone. The significance of this fact in influencing our views of the source of origin of the acetone, which makes but a transitory appearance in the urine of a patient, must be at once apparent, especially if an authentic confirmation be forthcoming of the intestinal origin of the aceto-acetic acid. A practical and ready method, therefore, of demonstrating at least the great preponderance of the acid over the acetone is an obvious desideratum, which is supplied by the two tests which have just been

described. Thus, if a sample of urine give a reaction with nitro-prusside of sodium, acetone bodies are present. Testing again with methylene blue, if the reaction be the same as that of normal urine, which should always be used as a control, the morbid constituent must be chiefly acetone. If, however, over a dozen drops of tincture of iodine be necessary to discolourise the urinary methylene-blue solution, the presence of aceto-acetic acid in considerable quantity is at once established; but if over 20 drops of discolourising tincture of iodine be required, a great if not exclusive preponderance of aceto-acetic acid may be reasonably inferred.

In conclusion, then, if there be no sugar present in the urine, and the aceto-acetic acid be a transitory phenomenon, especially if the patient be young and symptoms of gastric catarrh be present, it seems to me that the correct deduction would be that the site of manufacture of the aceto-acetic acid is the intestinal canal.

Bolton-le-Moors.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF ACUTE EMPHYSEMATOUS GANGRENE SIMULATING A LARGE SECONDARY HÆMORRHAGE.

BY C. E. H. MILNER, M.R.C.S., L.R.C.P. LOND.,
LIEUTENANT, R.A.M.C. (T.).

THAT "gas gangrene" can be attended by such profound collapse, with its rapidity of pulse, marked pallor, and profuse sweating, as to be mistaken for secondary hæmorrhage is illustrated by the following case.

On May 9th, while advancing in the open, Private —— received a bullet wound in the right thigh. The bullet passed through horizontally from side to side, fracturing the femur near the junction of the lower and middle third of the shaft. Three days later, on May 12th, he reached the 4th London General Hospital, packed for travelling in a double long Liston splint. The wounds of entrance and exit were very septic, and each held a large drainage-tube; and in order to admit of frequent dressing the right leg was put up on admission in a Hodgen's splint. The thigh was much swollen and the discharge extremely offensive. The following night his temperature rose to 102° F., and some of the pus was collected for bacteriological examination with a view to the preparation of an autogenous vaccine. The wound was not draining satisfactorily. At 2.30 P.M. on May 15th he suddenly collapsed, and his temperature was found to have fallen to 96°. He was sweating profusely, and his pulse was 120 per minute and very feeble. The dressing was immediately examined in the full expectation of finding a large hæmorrhage proceeding. But no blood was escaping from either wound. I gave him morphia hypodermically, raised the foot of the bed, and telephoned for Captain Arthur Evans, R.A.M.C. (T.). The right thigh was by this time still more swollen (in fact, almost to twice the size of the other) and was wooden-hard from pressure from within. The swelling and induration extended right up to the groin and even on abdominal percussion there was definite dulness in the right inguinal region.

Captain Evans examined the patient, and quite agreed that a secondary hæmorrhage must have taken place, so large as to have extended upwards under Poupart's ligament. In view of the extremely septic condition of the tissues ligature of the femoral artery was considered impossible and amputation at the hip-joint out of the question in the man's collapsed state. Captain Evans, therefore, opened the abdomen and ligatured the common iliac artery in the pelvis, and then performed a rapid amputation at the site of the fracture, leaving the end of the stump quite open for drainage.

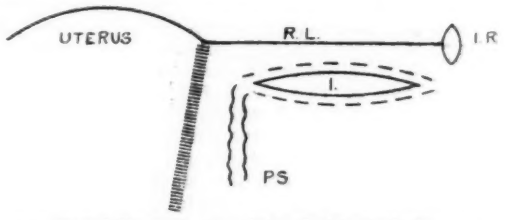
There was actually no sign of hæmorrhage. The whole of the soft tissues was one mass of gangrene, from which gas escaped with a sound exactly like that of a soda-water syphon. It extended upwards to the groin, under Poupart's ligament, and was making rapid progress in the abdomen itself.

In spite of intravenous saline infusion, which was carried out continuously throughout the operation, and hypodermic injections of strychnine, the patient never rallied and died very shortly after reaching the ward.

RESTORATION OF THE ROUND LIGAMENTS: AN ORIGINAL OPERATION FOR RETROVERSION.

BY ARTHUR J. NYULASY, M.R.C.S.,
GYNÆCOLOGIST TO THE PERTH HOSPITAL, PERTH, WEST AUSTRALIA.

IN the surgical treatment of retroversion of the uterus I had until recently been carrying out an intra-abdominal operation—taking a loop in the round ligament through a short incision in the anterior layer of the broad ligament, then stitching together the arms of the loop, replacing it, and finally closing by a purse-string the incision in the broad ligament. As with Alexander's method and that of Gilliam and many others, this operation really cuts out a portion of the overstretched round ligament, and to that extent can hardly be regarded as ideal. To accomplish the ideal the operative treatment of retroversion should be such that it would bring about a recontraction of the overstretched round ligaments, and lead to their



R.L., Round ligament. I.R., Internal abdominal ring. I., Line of incision. P.S., Purse-string suture. On tightening and tying the purse-string placed around the incision in the anterior layer of the broad ligament, the uterine cornu is approximated to the internal abdominal ring.

resuming their normal function of maintaining anteversion of the uterus. In performing the operation just described (first method), it occurred to me that by lengthening the incision in the broad ligament it might be possible to secure a satisfactory anteversion of the uterus without interfering at all with the round ligament. This view I have embodied in the operation now to be described as I am carrying it out at the present time with excellent immediate anatomical result in the 20 cases dealt with up to date.

The operation (second method).—With the patient in the Trendelenburg position the abdomen

is opened suprapubically by a median incision from two to two and a half inches long, or Pfannenstiel's incision may be employed. Parallel to and about half an inch from the round ligament the anterior layer of the broad ligament is split from near the uterine cornu to near the internal abdominal ring. This incision, after its edges have been well undermined, is closed by a silk purse-string, the cut edges of the incision being carefully tucked in. The result is an approximation of the uterine cornu to the internal abdominal ring. The same procedure being then carried out on the opposite side, the abdomen is closed.

Obviously, in the foregoing operation the appropriate length of the incision in the anterior layer of the broad ligament can readily be determined by catching the ends of the proposed line of incision with forceps, and bringing the points of the forceps together. The passing of the purse-string is facilitated by catching up all round with forceps the cut edges of the incision in the broad ligament.

The advantages of the operation are: (1) the short abdominal incision; (2) the simplicity of the operation; (3) non-interference with the round ligaments; (4) that unsuspected pelvic conditions may be readily dealt with; and (5) the high probability that the round ligaments will recontract. There appears to be no particular physiological reason why the round ligaments should not contract down after this operation. Indeed, I have seen such contraction occur in occasional instances even after the prolonged use of a Hodge pessary, while in two cases reopened one year and two years after hysteropexy the uterus remained in each case in perfect position after the suspending "ligament" had been cut away. So, too, in odd cases of early months' abortion with marked retroversion the uterus has been found a few months later to be drawn forward into perfect anteversion.

Perth, West Australia.

ERRATUM.—In Sir Lauder Brunton's paper on Functional Diseases of the Arteries in THE LANCET of July 24th, p. 164, col. 2, 11 lines from the end, for 1887 read *1867*.

Medical Societies.

ROYAL SOCIETY OF MEDICINE.

SECTION OF DERMATOLOGY.

Exhibition of Cases.

A MEETING of this section was held on July 15th, Dr. J. J. PRINGLE, the President, being in the chair.

The PRESIDENT showed a man, aged 40, who presented an erythematous, circinate and gyrate eruption of very large pattern on the trunk and limbs of more than six weeks' duration.—The case was discussed by Dr. H. G. ADAMSON, Dr. GRAHAM LITTLE, Mr. J. E. R. MCDONAGH, Dr. J. M. H. MACLEOD, and Dr. J. H. STOWERS and considerable differences of opinion were expressed as to the diagnosis, but the bulk of evidence seemed to be in favour of its being an instance of the rare disease described by Darier as pityriasis rosea gigantea.

Dr. GRAHAM LITTLE exhibited: 1. A female patient, aged 66, with extremely numerous small tumours over the arms, neck, trunk, and thighs of two and a half years' duration, accompanied by irritation and urticarial attacks. Their contents consisted of sebaceous-like matter, and Dr. Graham Little regarded them as epidermal implantation or inclusion cysts.—The PRESIDENT thought the case was probably identical with a disease described by Dubreuilh of Bordeaux, in 1896, as "fat-containing cysts of the sweat glands," or of the condition described by Bosellini of Bologna and by himself in 1899 under the name of "steatoma multiplex."—The case was discussed by Mr. WILLMOTT EVANS, Dr. ADAMSON, Dr. MACLEOD, and Mr. MCDONAGH, who supported Dr. Little's views and confirmed his microscopic observations.——2. A case of Persistent Pigmentation around the Mouth of a boy aged 12, from Trinidad, apparently resulting from the application of tincture of iodine used for the treatment of a streptococcal infection of the lips.—Dr. MACLEOD and Dr. F. PARKES WEBER discussed the case.——3. A middle-aged woman presenting very extensive angioma serpiginosum with hæmorrhagic pigmentation on the legs, thighs, and abdomen, associated with joint pains. The relationship to, or identity with, the condition known as "Schamberg's disease" was discussed by Dr. DUDLEY CORBETT, the PRESIDENT, and Dr. PARKES WEBER, while Dr. G. PERNET suggested the possibility of a syphilitic origin.

Dr. G. F. STEBBING showed: 1. A case of Atrophic Sclerodermia and Sclerodactylia in a woman, aged 70, with enormous masses of calcification almost completely surrounding the left shoulder-joint, as demonstrated by skiagram.—Dr. PARKES WEBER remarked upon the comparative immunity of the feet from sclerodermia.——2. A middle-aged woman with Congenital Multiple Tumours confined to the extensor surface of the right arm.—The PRESIDENT, Mr. MCDONAGH, and Dr. PARKES WEBER commented upon the resemblance of the tumours to leiomyomata, and advocated biopsy to settle the point.—Dr. GRAHAM LITTLE suggested a possible diagnosis of urticaria pigmentosa.

Dr. H. W. BARBER exhibited a middle-aged woman suffering from severe inflammatory Lupus Erythematosus of the face and arms, apparently of about 16 years' duration. She also had myxœdema, and had been treated with thyroid.—Dr. BARBER as well as Dr. STOWERS, Dr. PERNET, Dr. KNOWSLEY SIBLEY, and the PRESIDENT agreed that the severity of the case had been increased by the application of X rays at a provincial hospital, but Dr. CORBETT reported favourable results in strictly localised cases of the disease from zinc ionisation followed by small doses of X rays.

Mr. H. C. SAMUEL showed two sisters, both suffering simultaneously from severe Lichen Planus of circinate type of the legs and trunk.—Dr. GRAHAM LITTLE and Dr. STOWERS reported similar incidence of lichen planus in sisters.

Dr. S. E. DORE exhibited a young woman, aged 23, suffering from Graves's Disease of two years' duration, the most marked symptoms of which were enlarged thyroid, tachycardia, and fine tremors. During the same period she had had dystrophies of the nail with intermittent cheiropompholyx. The feet were not affected. He commented on the admitted occasional occurrence of nail changes in Graves's disease, and thought that cheiropompholyx played no part in the production of the nail change.—Dr. PARKES WEBER did not associate the nail conditions with Graves's disease, but Dr. PERNET and the PRESIDENT shared Dr. Dore's views.

Dr. DUDLEY CORBETT exhibited a case of Sclerodermia in an old woman with much telangiectatic change over the clavicular regions, somewhat resembling an X ray burn.

LONDON HOSPITAL MEDICAL COLLEGE.—The following prizes have been awarded for work done during the session 1914–15:—Price Scholarship in Science, £100, I. H. Zortman. Price Scholarship in Anatomy and Physiology, £52 10*s*., H. D. McIlroy. Buxton Scholarship, Arts, £31 10*s*., T. E. W. Wood. Clinical Medicine, £20, R. G. Sterling; honorary certificate, R. G. Michelmore. Clinical Surgery, £20, R. G. Sterling. Clinical Obstetrics, £20, A. H. Morley. Duckworth Nelson Prize (Biennial), £10, R. G. Sterling. Letheby Prize, Organic Chemistry, £10, A. Sebba. Anatomy and Physiology, £25, H. Gluckman; honorary certificate, G. Adler. Dressers' Prizes, Elementary Clinical Surgery, £5, G. P. B. Huddy, A. G. Harsant, and G. P. Tatton; honorary certificate, G. Fehrsen. Minor Surgery, £5, A. G. Harsant, B. W. Phillips, W. G. Owen, and D. D. C. Thomson. Practical Anatomy, £4, S. N. Senitzky. Anderson Prizes, £3, A. G. Harsant and R. G. Simpson (equal, prize divided), M. C. Cooper, and H. H. Bailey; honorary certificate, C. H. Carroll.

Reviews and Notices of Books.

Urgent Symptoms in Medical Practice.

By ROBERT SAUNDBY, M.D. Edin., Professor of Medicine in the University of Birmingham. London: Edward Arnold. 1915. Pp. 438. Price 7*s.* 6*d.* net.

THE author's intention in writing this volume has been to provide "a handy work of reference for the busy practitioner or student who desires to learn quickly, without the delay and labour of consulting several volumes, the significance of a particular symptom, the indications it affords, and the means whereby it may be relieved, due regard being had to the importance of attacking the true cause, and not merely the superficial phenomena of disease." The plan is excellent; but in its execution Professor Saundby has produced a volume of quite another sort—namely, a medical dictionary of limited scope in which the rarities of medical practice receive as much attention as the common-places, and both diagnosis and treatment receive but scant attention in the majority of cases. For example, it is hard to see how "hippus," "honey-poisoning," "hydrothionuria" (misspelt "hydriothionuria"), "maternal impressions," "mirror-writing," "rectal atresia," "traumatopnœa," "xanthin," "Bichat's pad," and the like, can be regarded as urgent symptoms in medical practice; no treatment is suggested under any of these headings. On the other hand, admirable short articles with sound practical suggestions as to treatment are given under such headings as "angina pectoris," "asthma," "constipation," "diarrhœa," "hæmaturia," "sleeplessness," and "vomiting." Professor Saundby appears to ascribe growing pains to a staphylococcal osteomyelitis (p. 165), and to advise the use of Calmette's rather than von Pirquet's reaction in the diagnosis of tuberculosis in children (p. 99).

Professor Saundby's book forms reading that is often interesting and instructive, though necessarily disjointed. It is fairly certain that a further edition of a book containing so much that is valuable, and written by so well-known and practical an authority, will be called for when the author may consider it worth while to make some revision of his material in accordance with the plan indicated by the title. An opportunity will also be given for some proof-correcting.

Amœbiasis and the Dysenteries.

By LLEWELLYN POWELL PHILLIPS, M.A., M.D. Cantab., F.R.C.P. Lond., F.R.C.S. Eng., Professor of Medicine in the Egyptian Government School of Medicine, Cairo, &c. London: H. K. Lewis. 1915. Pp. 147. Price 6*s.* 6*d.* net.

THIS little volume, by Dr. L. P. Phillips, of Cairo, a recognised expert on the subjects, gives an excellent account of amœbiasis and the dysenteries in clear and concise language. We gather from the preface that the publication of the book has been somewhat hastened owing to the expectation, based on the history of previous prolonged war campaigns, that the present world-wide conflict would be followed by the development of epidemics of dysentery in some at least of the armies now in the field.

The work is divided into 12 chapters with a preface and an introduction, as well as a long list of references and a full index. Six of the chapters, comprising half of the whole volume, are devoted to the consideration of amœbiasis, or the amœbic infection of the intestines and other organs. The subject of ciliate dysentery, or balantidiasis, is dealt with in a single chapter, and to the two other protozoal forms of the disease, the flagellate and the bilharzial, a chapter each is given. The three remaining chapters discuss bacillary dysentery in its various aspects. In so condensed a work some parts of the subject receive more attention than others, but the total result is quite satisfactory. In dealing with the treatment of amœbic dysentery Dr. Phillips confirms the experiences of Sir Leonard Rogers and others regarding the value of emetin, and states emphatically that in this remedy we have one of the most powerful specific drugs known, probably more efficient in amœbiasis than quinine in malaria; prolonged treatment, however, is necessary in order to obtain the best results.

This volume is likely to prove of great service to practitioners who wish to obtain speedy and trustworthy information regarding dysentery in any of its recognised forms. We have much pleasure in recommending the book to our readers.

A Handbook of Medical Jurisprudence and Toxicology.

By WILLIAM A. BREND, M.A. Cantab., M.B., B.Sc. Lond., Barrister-at-Law, Lecturer on Forensic Medicine, Charing Cross Hospital. Second edition. London: Charles Griffin and Company. 1915. Pp. 309. Price 8*s.* 6*d.*

IN this volume Dr. Brend has succeeded in presenting in a succinct form the essential facts relating to medical jurisprudence. Although necessarily condensed, the information will be found sufficient for students about to present themselves for examination. A rather close study of the text, however, is necessary, for the various points are considered briefly, though clearly, and are not relieved by a large number of illustrative cases which are attractive to the reader.

In most of the new editions of books dealing with medical jurisprudence an account is given of the laws relating to medical practice. This knowledge is not only essential to the medical practitioner, but students must also be acquainted with the facts, since they may be asked questions on the subject in their examinations. Dr. Brend's remarks in this connexion are well worth study, for he explains the various points clearly.

In the portion of the work dealing with toxicology the appearance of poisons, their source, preparations, symptoms, treatment, and the post-mortem appearances they may cause are fully described and the chemical tests are also given. The essential points in connexion with each poison are well set forth, and the condensed nature of the book is more appropriate here than in the first part, dealing with medical jurisprudence.

We have here a handbook for students rather than a work of reference for practitioners, but Dr. Brend has compressed a large amount of information into a comparatively small space.

LIBRARY TABLE.

Practical Sanitary Science. By DAVID SOMMERVILLE, B.A., M.Sc., M.D. Belf., M.R.C.P. Lond., D.P.H. Camb., F.C.S. Second edition. London: Baillière, Tindall, and Cox. Pp. 328. Price 10*s.* 6*d.* net.—The subjects dealt with in the 12 chapters of this book are water, sewage effluents, soil, air, foodstuffs, and disinfectants. The work takes a rapid survey of the subjects needed in the examinations for public health diplomas, and it seems to have been prepared with this purpose in view. The style is colloquial, the author using symbols freely. A few examples may be quoted: "Sewage derives the bulk of its Cl the total amount of I liberated be determined and from urine"; "If O be carefully excluded..."; "If now the amount of I theoretically liberated by the nitrite (why not NO_2?) be calculated, the difference will represent the I liberated by the O dissolved in the water"; "Dissolve the arsenic from the Cu slip"; "The loss of weight is As." These examples serve to show the method of the book. In the preface to the first edition the author suggested that the student, whilst using the work, would do well constantly to refer to elementary text-books in the subjects of experimental physics, systematic organic and inorganic chemistry, analytical chemistry, geology, and bacteriology. Such additional help is needed, for the book is a synopsis only, though a good and up-to-date one.

Nerve Control: the Cure of Nervousness and Stage-fright. By H. ERNEST HUNT. London: William Rider and Son. 1915. Pp. 128. Price 1*s.* net.—The author assumes, though he states it as a fact, that stage-fright and nervousness in public arise from a failure on a first appearance, which suggests fear for the next occasion; from fear-thoughts comes fear, hence a mental habit is acquired which acts as a permanent suggestion. To cure the condition the writer proposes the sufferer should write out on a piece of paper, "I am absolutely self-confident" and analogous suggestions, commit them to memory, and then inbuild them into his mind. Result—self-cure. In many cases of nervousness, however, the roots of the trouble go rather deeper than the author appears to be aware, while we miss any hint of the necessity of some dynamic, some driving power, whereby cold suggestions such as the above can be made to produce their due effect.

An Introduction to Midwifery. By ARCHIBALD DONALD, M.A., M.D., C.M. Edin., M.R.C.P. Lond., Gynæcological Surgeon to the Manchester Royal Infirmary; Professor of Obstetrics and Gynæcology in the University of Manchester, &c. Seventh edition. London: Charles Griffin and Co., Limited. 1915. Pp. 192. Price 5*s.*—When a book has reached its seventh edition it is obviously one which the public makes use of, and in the case of the present volume the high standing of the author lends authority to all the statements that he makes. In his preface Dr. Donald states that the volume is intended for candidates preparing for the examinations of the Central Midwives Board and also for medical students. In the case of the latter it would be necessary for them to read subsequently a larger text-book before presenting themselves for examination in the subject, but the present volume contains all, and more, that a midwife need know. It is written in an elementary way, so that a beginner can comprehend its meaning, and the statements it contains are concise and dogmatic as simple teaching must be. But occasionally the dogmatic statements will not meet, we think, with the approval of all the examiners to the Central Midwives Board. For example, the midwife is told that in cases of "alarming bleeding" (post-partum) if the placenta cannot be expressed it is better for the midwife not to attempt to remove it by the introduction of the hand, but to wait for the doctor's arrival. One also feels that certain passages are hardly in accordance with modern customs and might have been omitted in a 1915 edition—thus we are told that bright sunlight must be shut out from the lying-in room during the first few days. It is, perhaps, also permissible to criticise the inclusion of such uncommon things as the malacosteon and spondylolisthetic pelvis in a book mainly intended for the use of pupil midwives. But these are small points, and, speaking generally, the writing is excellent and well suited for its purpose. The illustrations are numerous, but are apparently still the same as appeared in the earlier editions of the book. Many should be brought up to date or omitted. A pupil who has been instructed by the rules of the Central Midwives Board to have the sleeves of her dress made so that they can be tucked well up above the elbows will be surprised and shocked to find an illustration (after Tyler Smith) of a vaginal examination in the first stage of labour in which the obstetrician is not only not wearing rubber gloves but has his coat-sleeve and shirt-cuff almost in contact with his hand.

The Other Side of Silence. By P. HABBERTON LULHAM, M.R.C.S., L.R.C.P. Lond. London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. 1915. Pp. 115.—It is a pleasure to welcome really fine poetry from a member of the medical profession, for it reminds us that the leisured arts of life have not, even in these days, been altogether banished from our professional midst. Keen appreciation of nature is displayed in several poems on bird life, and particularly perhaps in one entitled "May Dawn"; pathos is evidenced in many of the pieces, e.g., "Mismated"; while "Mistaken Tryst" is a graceful phantasy. "Made a Man" is a strong and tender piece of work inspired by the war; the words have been set to music by Florence Aylward and published by Chappell and Co., Limited. There are apostrophic verses to Edgar Allen Poe and Thomas Hardy, while the final poem in the book, a tribute to Dr. Bart Rous, a former assistant editor of THE LANCET, makes a natural appeal to us.

The Valley of Fear. By Sir A. CONAN DOYLE. London: Smith, Elder, and Co. 1915. Pp. 306. Price 6*s.*—In his latest book Sir A. Conan Doyle narrates an exploit of Sherlock Holmes. The book is divided into two parts, each of which is complete in itself as a story, though the second part, describing the valley of the title, explains the mysterious death around which interest centres in the first part. Sherlock Holmes plays his accustomed part with his unfailing aplomb. The second part, dealing with the lawless doings of a band of unscrupulous criminals in an American mining area, has some thrilling incidents, and the dénouement will come as a surprise to many readers, but this division of the narrative falls a little flat, perhaps owing to the absence of the great detective.

JOURNALS AND MAGAZINES.

As is only to be expected, the war constitutes the dominant note in the collection of medical school journals that lie on our table. *University College* (*London*) *Union Magazine* for June contains some extracts from interesting war letters from students. The remaining contents relate chiefly to the various college institutions.—*St. Mary's Hospital Gazette* for June contains a paper by Dr. Graham Little on Pemphigoid Eruptions, followed by war correspondence from the front by St. Mary's men.—The *St. Thomas's Hospital Gazette* for June contains a paper by Dr. J. P. Hedley on Some Early Abdominal Surgeons, correspondence on Nietzsche and the Superman, also a letter from Surgeon W. W. King Brown, R.N.V.R., who is a prisoner of war at Heidelberg, in which the reassuring statement is made, "The Germans are treating their prisoners very well indeed, and we are agreeably surprised." The July issue contains a correspondent's note on St. Thomas's dressers at the front, an article on the German Kamerun by one who apparently took part in the expedition, and portion of a clinical lecture, by Dr. C. R. Box, on the Stokes-Adams Syndrome.—*Guy's Hospital Gazette* for June 19th continues an Old Guy's Man's Experiences in Brussels during the War, with a third communication called During the German Occupation. Dr. Herbert French's clinical lectures on Syphilis of the Cardio-vascular System are continued. The number contains an intimate and a sympathetic personal reminiscence, accompanied with a portrait of Dr. A. C. Clifford, who was killed in action while serving (as a second lieutenant) in the 3rd Dragoon Guards at Ypres. The issue for July 3rd contains a further instalment of the Old Guy's Man's Experiences in Brussels during the War, and a clinical lecture on Visceroptosis, by Dr. A. F. Hertz. That for July 17th contains an obituary notice of Mr. Clement Lucas; also portraits of Lieutenant M. Pern, R.A.M.C., and Second Lieutenant L. P. Waghorn, of the Berkshire Regiment, with reminiscent notes of two other Guy's students who gave up their lives fighting for their country. Dr. Hertz concludes his lecture on Visceroptosis.—*St. Bartholomew's Hospital Journal* for June also contains letters from the front and an instalment of an account of the naval action off Heligoland, by Fleet-Surgeon W. K. Hopkins, R.N., reprinted from the *Journal of the Royal Naval Medical Service*. Captain C. W. Chambers, R.A.M.C., gives his impressions with a brigade of Field Artillery, and Dr. A. R. Neligan a Note on the Use of Emetine, with an account of a case of hepatic abscess opening through the lung and cured by emetine hydrochloride. The July issue has more notes from the front, a clever suggestion in Gilbertian verse on How to Brighten the Clinical Note, by "Lambert Suture"; Observations on the Pathology and Treatment of Gout, by Dr. Arthur E. T. Longhurst; and a note on a Continued Fever of Korea, by Dr. H. H. Weir.—The *London Hospital Gazette* for July is quite in the prevailing fashion with miscellaneous notes on war experiences and impressions. There are full rolls of London Hospital men and nurses serving in the war, and obituary notes, with portraits, of Captain H. V. B. Byatt and Lieutenant Chapman, R.A.M.C., and of Private R. E. B Denny, of the London Hospital and the Canadian Scottish. Mr. N. M. Sen-Gupta gives an interesting account of Early Hindu surgery, in which he lays stress on the effect of Hindu medical science upon the Arabs from the eighth century.—The June number of the *Middlesex Hospital Journal* gives a medical account of the fight at Neuve Chapelle, and that for July an interesting retrospect of the progress of hospital affairs since the first number of the journal was published in 1897 under the editorship of Dr. H. Campbell Thomson and Dr. C. H Reissmann. Dr. J. Strickland Goodall and Mr. H. N. Dale Richards publish a paper on Some Instrumental Variations in the Human Electrocardiogram, which was read at the British Medical Association, Aberdeen, in 1914.

The Indian Journal of Medical Research, Vol. II., No. 4.—This number completes the second volume of the Journal, which continues to display a high standard of excellence in its practical and scientific papers. Major S. R. Christophers, I.M.S., writes on the spleen rate and other splenic indices, their nature and significance, the results of his experimental observations going to show that the spleen rate is far more than an excellent rough indication of the salubrity or the reverse, as regards malaria, of any particular district.—A joint paper by Lieutenant-Colonel Sir L. Rogers, I.M.S., and Captain J. A. Shorten, I.M.S., deals with the alkalinity of the blood in kala-azar and cholera, and the technique of its estimation.—Major A. G. McKendrick, director of the Pasteur Institute of India, Kasauli, in a highly technical contribution, discusses a test for "residual epidemicity."—Major A. C. MacGilchrist, I.M.S., who has been for some time working on the alkaloids of cinchona bark, and who has already in previous numbers of the Journal published some of his reports on the subject, now considers quinoidine, its characters, composition, and lethality to protozoa (being his fourth communication on the Cinchona Derivatives Inquiry). From his experiments it would appear that quinoidine is much inferior to quinine as an anti-protozoal or anti-malarial agent.—In continuation of previous special researches on cholera Major E. D. W. Greig, I.M.S., supplies a paper on the vibricidal power of the bile of animals after administration of hexamethylene-tetramine and its compounds. The results of his experimental observations are given as a contribution to the difficult problem of the prevention of the "carrier" state in cholera, the most hopeful line of attack against which, so far, appears to be by way of chemotherapy. Major Greig has demonstrated that after the administration of hexamethylene-tetramine the drug is eliminated in the bile, and that it can exert definite bactericidal action on the cholera vibrios in that secretion. Major Greig also supplies a note on a cholera carrier in relation to the water-supply of Calcutta.—The experimental transmission of Indian kala-azar to animals forms the subject of an article by Major F. Percival Mackie, I.M.S., whose experiments given in detail, do not support the belief that any of animals examined, including monkeys, flying foxes, white rats, and mice, are the natural reservoirs of the virus of kala-azar in Assam villages; the most that can be said is that young dogs are more susceptible to experimental infection than any of the other animals which were used. Major Mackie also discusses the relationship between this disease and some biting insects. Body-lice, head-lice, bed-bugs, mosquitoes, sand-flies, as well as leeches, were experimented with, but the negative results which were obtained rather tend to check enthusiasm for the insect-borne hypothesis of kala-azar. The only insect that gave any return for the labour spent upon it was the sand-fly, as to which Major Mackie expresses the opinion that probably further investigations upon it would well repay the worker.—The causes of Monsoon diarrhœa and dysentery in Poona are considered by Captain J. Morison, I.M.S., with several maps and charts, this being his second report upon the subject. It appears that the relation of the sewage problem of Lake Fife (a source of the city's water-supply) to the epidemics of diarrhœa in Poona is so close and so constant that one stands to the other as a cause to an effect.—*Artyfechinostoma sufrartyfex*, a new parasitic echinostoma of man, is described, with an illustrative plate, by Major Clayton Lane, I.M.S.—The number concludes with a joint article furnished by Lieutenant-Colonel W. D. Sutherland, I.M.S., and Assistant Surgeon G. C. Mitra on the Wassermann reaction in malaria, kala-azar, and leprosy.—A complete index of authors and subjects for Vol. II. is also appended.

BRISTOL ROYAL INFIRMARY.—At the last meeting of the committee of the Bristol Royal Infirmary the President (Sir G. White), on behalf of the committee, congratulated Nurse Barbier, who was called up on the Civil Hospitals Reserve in August, 1914, and had been mentioned in despatches and decorated by His Majesty on July 12th with the Royal Red Cross. It was also stated that two recent members of the resident medical staff (Captain A. L. Sheppard, R.A.M.C., and Lieutenant C. H. Hart, R.A.M.C.) had been mentioned in despatches.

THE DRAINAGE OF NEWQUAY (CORNWALL).—On July 20th Sir Robert Edgcumbe, the chairman of the urban district council, formally opened the new drainage which has been recently completed at Newquay. The works have taken four years to construct, and the cost of the undertaking is about £12,000. Sir R. Edgcumbe, in the course of his speech, stated that Newquay had an excellent water-supply, and now a first-class system of drainage had been provided.

THE LANCET.

LONDON: SATURDAY, JULY 31, 1915.

The Provision of Medical Men for the Army.

AT the annual Representative Meeting of the British Medical Association which took place last week in London the question of how the needs of the army with regard to medical officers could be supplied was the most important one discussed. The resulting action will meet with the general approval of the medical profession and the public, for a mixed committee with a wide reference has been appointed to take up the whole matter at the point to which it had been brought by the work of the Council of the Association and its Committee of Chairmen of Standing Committees. This mixed committee, to be known as the War Emergency Committee for England, Wales, and Ireland, has now been constituted as follows: The President, Treasurer, Chairman of Council, and Chairman of Representative Meetings of the British Medical Association; four members elected by the Representative Meeting—namely, Sir CLIFFORD ALLBUTT, Regius Professor of Physic in the University of Cambridge and President-elect of the British Medical Association; Sir WILLIAM OSLER, Regius Professor of Medicine in the University of Oxford; Dr. A. E. SHIPLEY, the Master of Christ's College, Cambridge; and Mr. T. JENNER VERRALL, lately chairman of the Representative Body; four members elected from among itself by the Representative Body—namely, Dr. C. BUTTAR, Major RUSSELL COOMBE, Captain W. J. GREER, and Major ALBERT LUCAS; and the following four members appointed by the Council: Major JAMES GALLOWAY, Lieutenant-Colonel R. A. BOLAM, Mr. N. BISHOP HARMAN, and Lieutenant-Colonel Sir JAMES BARR. These members of the committee have been empowered to co-opt not more than six other members representing universities, colleges, and other medical bodies. The committee is thus quite a strong body, erring perhaps in being too large.

The new mixed committee is constituted for England, Wales, and Ireland, and not for Scotland because, as is well known, the Scottish Medical Service Emergency Committee has done the work for that division of the kingdom already, and has indeed formed the example upon which it is clear that the new committee will model itself to a great extent. The Scottish Medical Service Emergency Committee is a representative committee of the Universities and the Royal Corporations of Scotland and the Scottish divisions of the British Medical Association. It started in December of last year to meet the demand that its founders saw would be made on the medical profession to supply medical officers for the army. Using the divisions of the British Medical Association for the purpose, the Scottish Committee arrived at the percentage of medical men to population in the various parts of the country, and were thus enabled to indicate from which districts medical men could best be spared to join the army. It may be added that the estimates of the committee as to the number of men which might fairly be sent from any particular centre have been recognised by nearly all those centres as fair; and, indeed, in several localities the intention has been expressed to find a larger number than was proposed by the informal levy. Undoubtedly the War Emergency Committee for England, Wales, and Ireland will have a harder task. Mere numbers will complicate matters in the great centres of population in England and Wales, while absence of organisation will present difficulties in many parts of both countries and in most of Ireland; but there is no reason to suppose that the new committee will not be able to produce effective results. In evidence of this it may be said that the Metropolitan Branch of the British Medical Association has already compiled a register of medical men in the metropolitan district which in particulars and details should prove very valuable, and what can be done for the metropolis can be done for any other part of the United Kingdom. A medical war register, already in process of formation at the hands of the British Medical Association, comprises a large proportion of the profession, and should in a short time give the War Emergency Committee invaluable assistance.

The work of the committee will be considerable and far from easy. To collect information may be mainly a matter of organisation, but to act upon it will require intimate knowledge of professional matters in every aspect. We have received many letters in the last three or four months which show that the position of the medical man who has joined the forces is a very varying one in respect of his relinquished practice. Sometimes his pecuniary sacrifice is very heavy, and sometimes his actual gain is obvious. We publish in another column a letter this week, not because of any knowledge of the particular circumstances detailed, but because the story there narrated affords a good example of the sad plight in which the dependents of some of our patriotic colleagues may find themselves. With such cases as that described by "A Doctor's Wife" it may be the duty of the committee to deal, and it is clear that they can only do so by careful organisation of local effort. But these cases will not be so difficult as the cases where it is felt that the doctor with the colours is receiving too much for his services. Local information can be used freely to secure generous treatment for the medical man who has gone to the war. But it will be a delicate matter to indicate that such a medical man is receiving from his professional brethren at home greater consideration than can fairly be afforded, and yet examples of this situation will be found if they are looked for.

The Immediate Treatment of Wounds in War.

THE problem of the best treatment of wounds received in war is still engaging the attention of many of those who are at the front or at the base hospitals, and up to the present no decision has been reached which receives general assent. The most important point is not the treatment which should be followed several days or weeks after the infliction of the wound, but the treatment which should be applied immediately after the injury, or at least within a few hours. At present there are two directions along which surgical opinion is flowing, and these two currents of opinion may safely be said to satisfy EUCLID'S definition of parallel lines, for they will certainly not meet this side of infinity.

The supporters of one view hold that the application of antiseptics is valueless, is indeed worse than valueless, for the antiseptics injure the tissues and render them more readily attacked by the micro-organisms. They urge that what must be done is to assist the healing powers of nature; that this may be accomplished by the injection into the wound of solutions of salts, which, being non-irritating (and in no way antiseptic) may induce the flow of healthy serum from the neighbouring vessels, and this will exert an antagonistic action on the harmful bacteria, and thus will cleanse the wound. On the other side stand those who hold that what was sound in LISTER'S day is sound to-day. They contend that if an attempt be made at an early time after the infliction of a wound to destroy the micro-organisms success may follow; and that if destruction cannot be complete, the number of invading germs can be so reduced that the risk from them is minimised. They maintain that there is nothing in the forms of injury inflicted in war which differs essentially from the injuries met with in civil practice, and that what is true of wounds received in times of peace is true of wounds suffered in war. Sir W. WATSON CHEYNE published recently an interesting paper on some experiments he had made with Mr. ARTHUR EDMUNDS and Fleet-Surgeon P. W. BASSETT-SMITH on the power possessed by several antiseptics to permeate blood clot, the object being to find a substance with antiseptic properties which should have the power of passing through blood clot so as to penetrate to all parts of the wound, and thus diminish the number of the germs present even if it be impossible to destroy them all. The paper gave rise to considerable differences of opinion. In the present issue of THE LANCET we print an article from Sir WATSON CHEYNE, in which he describes the happy results which have been obtained in practice with the method which he has devised, and the partial failure which attended the misuse of the method in the hands of those who employed it in a half-hearted or erroneous manner. Sir WATSON CHEYNE makes it clear in the paper which we publish this week that some of the judges who have condemned him have based their objections on an utterly mistaken idea of his object. They appear to have thought that he intended the paste which he had devised for use as a permanent dressing, and that drainage was not required. The new method was never intended to obviate the need for drainage; drainage was an essential part of the method.

The results obtained by Mr. EDMUNDS and others are sufficiently gratifying to make it well worth while to follow up this mode of treatment of recent wounds. Every new method needs care and intelligence, and at least a hope that the method will prove a success. To start with a conviction concerning any technique that its employment will prove a failure is almost to ensure that failure. We have published some forcible criticism of the results obtained by the employment of "borsal" paste, and know from communications which we have received that the views of the author were shared by others. It seems to us quite likely that those views were based upon misunderstanding. Considering the enormous importance of the subject it would be well if verdicts were not delivered without a full weighing of the evidence; and well also if the idea were scouted that one method for the treatment of wounds and one only must always be the best. At the same time the support of authority is much to be desired for a general line of procedure which may be adopted in constantly recurring circumstances, and this position cannot be arrived at without free interchange of experiences and faithful trial of varying techniques.

Annotations.

"Ne quid nimis."

THE DEVELOPMENT OF LARYNGOLOGY AND RHINOLOGY.

THIS year marks the diamond jubilee of laryngoscopy. It is natural, therefore, that papers, brochures, and books should have been published during the past 12 months dealing with the history, development, and progress of the science of laryngology, the direct outcome of the discovery of laryngoscopy, and with the sister science of rhinology. The history of laryngoscopy really dates back to the beginning of the nineteenth century. Many investigators had conceived ideas and constructed instruments for viewing the vocal cords before the idea occurred to Manuel Garcia in 1854 of using a dentist's mirror and transmitted light for making observations of the human voice. Amongst those investigators were Bozzini, of Frankfurt, in 1807, Sence in 1827, Guy Babington, of London, in 1829, Selligue, of Paris, in 1832, Trousseau and Belloe, of Paris, in 1836, Bonnet, of Lyon, in 1838, Liston, of London, in 1840, Warden, of Edinburgh, in 1844, and Avery, of London, in 1846. Professor Dr. Emerich von Navratil, of Budapest, in a brochure of 53 pages, entitled "Entstehung und Entwickelung der

Laryngoskopie,"[1] has given his reminiscences of practice from 1858 to 1913. These reminiscences, therefore, date from and are contemporary with the application of laryngoscopy to practical medicine by Czermak and Türck. They are an important addition to the history of the subject, and their value is enhanced by the author's personal knowledge of those clinical investigators. The history and development of the allied science of rhinology has been minutely dealt with in a compactly printed volume of nearly 500 pages by Dr. Karl Kassel.[2] The volume represents a painstaking literary research and covers the history of the subject from the earliest times. Although written in chronological order, its usefulness as a work of reference would have been increased by an index to the subject matter and a table of contents. The book even without these has added to the prominence of the nose that nature always intended it should enjoy. Sir StClair Thomson, in an address recently delivered before the Harveian Society of London, took as his subject "Modern Methods in Rhino-laryngology." He opened his address with the remark that it was a little difficult to define exactly what is "modern" in a specialty which is only 60 years old. After reading Dr. Kassel's interesting account of rhinology as practised by the ancient Egyptians and their forebears, the difficulty, instead of being lessened, is further increased. The period of 60 years, as Sir StClair Thomson remarked, could be conveniently divided into three stages. The first might be dated from the publication in 1855 of Garcia's paper on the laryngoscope up to the year 1881. It was chiefly devoted to the study by inspection of diseases of the nose and throat and their treatment by topical or internal medication. Another milestone it is essential to notice is the publication at about this latter date of Sir Morell Mackenzie's work on diseases of the throat, which for many years was the standard work on the subject, and initiated many into the specialty both in this and other countries. The discovery of cocaine in 1881, which opened the second stage, at once facilitated laryngoscopy and rendered possible quite a large number of operations. The rapid surgical development of rhino-laryngology of the following 20 years was further helped by the discovery of the hæmostatic action of the extract of the suprarenal gland. The inception of the third stage was marked by the perfecting of those endoscopic methods foreseen and originated by Sir Morell Mackenzie. This third stage dates from the beginning of the present century; it has shared in the great advance of modern medicine and surgery, and it was chiefly the progress of those 15 years that the lecturer summarised. The cosmetic surgery of the external nose; the discovery of the nasal route to the pituitary body; intranasal dacryocystostomy; lateral rhinotomy or Moure's operation; the relationships of the nose and accessory sinuses to the eye and the orbit; the surgery of the accessory nasal sinuses; the endo-nasal operation on the frontal sinus, to mention only some of the advances made in this department of practice, would justify the conclusion expressed that the modern methods of rhino-laryngology were amongst the greatest triumphs of surgery in the twentieth century. Sir StClair Thomson doubts if any department of medicine has made anything like the rapid progress which rhino-laryngology had accomplished in the first years of the twentieth century. It no longer limits its domain, as it used to do, to the upper air passages. It had extended its field of operation up to and through the air sinuses at the base of the skull, down to smaller bronchi, and through the whole length of the œsophagus. He thus summarises the present situation: "The days are happily passed when laryngology, in common with other specialties, was apt to be sneered at by the high priests of medicine and surgery, and we were charged with invading territories where we were not wanted and where we did no good. Rhino-laryngology has explored and tilled the lands which general medicine and surgery had either neglected or failed to bring into cultivation, and now that this pioneer work has produced a plenteous harvest I think the present occasion is an opportunity to make known what are the fruits of our reaping and to indicate the portions of these new provinces which can now be handed over to the general republic of medicine."

[1] Entstehung und Entwickelung der Laryngoskopie. Von Prof. Dr. Emerich von Navratil, Budapest. Berlin: August Hirschwald. 1914. Pp. 53. Price M.1.60.

[2] Geschichte der Nasenheilkunde von ihren Anfängen bis zum 18. Jahrhundert. Von Dr. med. Karl Kassel. Würzburg: Verlag von Curt Kabitzsch. 1914. Pp. 476. Price M. 12.

AN UNUSUAL ACCIDENT.

AN unusual accident due to an explosion is reported by Mr. Leonard A. Wright in the *Medical Journal of Australia*. A contractor, aged 40 years, walked into St. Vincent's Hospital, Melbourne, impaled upon a broomstick which transfixed his right hand to his right shoulder. While using the stick for tamping an experimental charge of a new explosive for blasting an explosion occurred. On admission he was suffering from a moderate degree of shock. The stick was driven through the palm between the first and second metacarpal bones, causing a compound fracture dislocation of the base of the first. The stick then passed through his shirt and entered the axilla just below the anterior fold and traversed it a little above its floor upwards and outwards to emerge through its posterior wall. There was very little bleeding from the wound of entrance or of exit. There was no œdema of the arm, and the radial pulse was equal in volume to that on the opposite side. The skin of the face, both forearms, and the chest and abdomen was tattooed with fine grit. Both corneæ were powdered with grit, and the upper and outer part of the left cornea had been penetrated by a small gritty particle which was lying in the anterior chamber. Consent to amputation of the limb, if necessary, having been obtained, the patient was anæsthetised, his dirty clothes were cut away and the chest and arm were freely dabbed with tincture of iodine. An assistant stood by ready to control the right subclavian artery. The stick was sawn across as close as possible to the dorsum of the hand and drawn out towards the palmar aspect. The stick was again sawn at its point of exit from the posterior axilla and extracted by drawing it out forwards. No hæmorrhage followed the removal of either portion. Apparently the stick had traversed the axilla without injuring any important structure. A drainage-tube was drawn through each tract and the wounds were dressed. The skin of the forearm was painted with iodine and a dry dressing applied. The conjunctival sacs were washed out with boric lotion, and many of the foreign bodies were removed from the corneæ. In the left eye an

upper and outer iridectomy was performed and the penetrating foreign body was removed. A subcutaneous injection of 10 c.c. of antitetanic serum was given as a prophylactic, and the dose was repeated on the following day. Recovery was uninterrupted. Good movement was regained in the shoulder and arm, and the movements of the hand were only slightly impaired. Good vision was recovered in the right eye, but the left had to be excised six weeks after the accident.

SLEEPING SICKNESS ON PRINCIPÉ.

THERE are few more arresting chapters in the history of medical progress and achievement than those relating to the successful struggles in various parts of the world against malaria and yellow fever. The fight against the terrible scourge of sleeping sickness is one of greater difficulty, and up to the present has not been crowned with so large a measure of success. Portugal claims credit for conducting one of the first successful campaigns against the glossina—the insect disseminator of sleeping sickness. The Portuguese triumph has been won on the island of Principé, one of the cocoa-growing islands off the west coast of Africa, about which a good deal was heard a year or two back in connexion with the system of indentured labour prevailing there. An interesting account of the procedure in Principé is given in the final report of the Medical Commission (1912–1914) appointed by the Portuguese Government to investigate the subject of sleeping sickness in the island and to devise, if possible, means for the suppression of the disease. The report constitutes Vol. V. of the *Arquivos de Higiene e Patologia Exóticas*, published by the Lisbon School of Tropical Medicine. It is profusely and beautifully illustrated, the illustrations enabling the reader to realise the marvellous luxuriance of vegetation on the island and to follow clearly the account given in the report of the works of sanitation devised by the commission and carried out under its orders and expert supervision. There are but three known foci of glossina outside the African continent, G. tachinoides infesting part of the coast of Arabia and G. palpalis having established itself on Principé and the neighbouring island of Fernando Po, both in the Gulf of Guinea. According to the tradition prevalent in the island G. palpalis was introduced into Principé near the beginning of last century. The island of São Thomé, curiously enough, has so far remained uninfested by glossina, though it presents conditions for the life and development of the insect precisely similar to those of Principé; and there is, further, constant communication between the two islands, including a busy traffic in live cattle. Principé has, as one would expect from the prevalence there of the "fly," suffered severely from sleeping sickness. The total mortality from the disease from 1902 to 1913 was 2525. This corresponds to 2100 deaths per decennium. As the average population of the island during the same period was 3800, we see that these appalling figures mean that in 20 years the island was losing from sleeping sickness a number of individuals considerably greater than her average total population. The Portuguese Government has been fully alive to the importance of finding a remedy for so disastrous a state of things, and in 1901 and 1908 commissions were appointed and sent out to the island to investigate the whole subject and suggest remedies. These commissions did excellent work and made many valuable suggestions. The credit, however, for the elaborate and successful attempts to exterminate G. palpalis is due to the commission appointed in 1912. Principé is covered with a luxuriant growth of vegetation which extends on all sides of the island down to high water-mark. In the northern and less mountainous half of the island are many unwholesome pools and swamps. The forests and jungles were populated by large numbers of semi-wild pigs, the descendants of domesticated swine escaped from farms and estates throughout the island. These swine frequented the most swampy and most densely overgrown neighbourhoods, and were there greedily fastened on by swarms of glossina which found in such neighbourhoods the physical conditions best suited to persistence and multiplication. The plan of campaign against the glossina drawn up by the commission was a comprehensive one, and full powers and means were given to the commission by the Government to carry it out. The following were its essential features: 1. The forests were systematically thinned and the dense undergrowth freely cleared away so as to admit air and sunlight. 2. All swamps were drained. 3. All wild pigs were massacred, and the keeping of swine in the island was strictly forbidden. All stray dogs were killed. 4. Gangs of men wearing on their backs cloths smeared with a sticky compound attractive to the glossina accompanied the clearing parties. Large numbers of glossina at first fastened on the cloths, but the numbers became steadily fewer as the campaign proceeded, and the last glossina was captured in May, 1914. The effect of the campaign on the prevalence of sleeping sickness is shown in the reduction of the mortality from 251 in 1911 to 166 in 1912 and 133 in 1913, the percentage mortality from sleeping sickness in relation to the general mortality falling during the same period from 53·17 in 1911 to 43·0 in 1912 and to 38·34 in 1913. The commission has devised and carried out a fine piece of work with a thoroughness and efficiency which reflects immense credit on the medical men of whom it is composed, and has given in its report an admirably clear account of the whole matter.

THE METROPOLITAN WATER-SUPPLY.

THE report on the condition of the metropolitan water-supply during the month of April was issued last week. It will be recalled that April was a fine and dry month, the mean rainfall for all parts of the Thames basin being 1·17 inches, which is 0·54 of an inch below the average for that month during the previous 32 years. Chemical tests showed a general improvement in all three raw river supplies (Thames, Lee, and New River), and the filtered waters also showed improved quality. Bacteriologically the raw waters contained fewer bacteria than their respective averages for the year 1914. The filtered waters also were satisfactory, but a difference, which is being investigated, is being shown between the general filter well and pressure main results at the Lambeth works. We have also received a copy of the eleventh report on research work by Dr. A. C. Houston, the director of water examinations. This deals with the excess lime method of purification, and the results are interesting and important, for Dr. Houston does not hesitate to express the opinion that river water, no matter how impure, may be brought into a condition of absolute safety bacteriologically, and of great relative

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE undermentioned have been granted temporary commissions as Surgeons in His Majesty's Fleet:—Dated July 15th: Robert James Inman. Dated July 16th: Reginald Lyon, Alexander Fraser McIntosh, Alexander Young, John Desmond Milligan, and Edgar Granger. Dated July 17th: Harold Williamson.

The undermentioned have been entered as temporary Surgeons:—Dated July 19th: Charles Humphry Gow, Walter Herbert Butcher, and Robert Malcolm Dannatt.

The following appointments have been notified:—Staff-Surgeons: L. L. Greig to the *Attentive*, and C. T. Baxter to the *Egmont*, additional, for Malta Hospital; and C. Ross to the *Pembroke*, additional, for disposal. Surgeons: R. Tennent (temporary) to the *President*, additional; and T. J. O'Riordan to the *Vivid*, additional, for disposal.

ROYAL NAVAL VOLUNTEER RESERVE.

Surgeon Probationer: A. MacRae to the *Cameleon*.

ROYAL ARMY MEDICAL CORPS.

The undermentioned Captains to be Majors:—Dated July 1st: Godfrey F. Rugg, John Fairbairn, Robert G. Anderson (who remains seconded), James H. Douglass, Robert R. Lewis, Alexander L. Otway, Charles H. Turner, Eugene C. Whitehead, Walter F. H. Vaughan, Richard B. Hole, Travis C. Lucas, George E. Cathcart, William Wiley, Howard Harding, John A. Turnbull, Montague F. Grant, David P. Johnstone, Edward H. M. Moore, Michael D. Ahern, Frederick J. Garland, Alban A. Meaden, Robert J. Cahill, Sidney C. Bowle, Harry B. Connell, Arthur S. Arthur, William Byam (who remains seconded), Charles Ryley, Patrick Dwyer, Phillip C. T. Davy, Harry T. Wilson, Richard C. Hallowes, James H. Campbell, George A. D. Harvey, Harold C. Winckworth, Harry W. Russell, Harry C. Sidgwick, Meurice Sinclair, George R. Painton, Nelson Low, Alastair N. Fraser, Robert H. L. Cordner, Herbert St. M. Carter, D.S.O., Augustine T. Frost, Kenneth A. C. Doig, Percy A. Lloyd-Jones, D.S.O., Cecil R. Millar, John St. A. Maughan, Lionel V. Thurston, Arthur W. Gater, and John P. Lynch.

John Keay to be temporary Lieutenant-Colonel whilst employed at the Edinburgh War Hospital (dated May 15th.)

Kenneth Macfarlane Walker is granted temporarily the honorary rank of Captain whilst serving with No. 1 British Red Cross (The Duchess of Westminster's) Hospital (dated April 14th).

James McCardie Martin, D.S.O., late Deputy Inspector-General, Royal Navy Medical Department, to be temporary Major (dated July 9th).

The undermentioned to be temporary Captains:—Dated April 23rd: Bernard Hudson. Dated May 19th: Temporary Lieutenant George B. Price. Dated May 24th: Captain Daniel O'Connell Finigan, from the 7th (Service) Battalion, The York and Lancaster Regiment. Dated June 7th: George Alexander Douglas McArthur, Captain, Australian Army Medical Corps. Dated July 1st: John Douglas Campbell White. Dated July 22nd: Temporary Lieutenant Alic Phillips, late Surgeon Captain, Army Medical Reserve of Officers; temporary Lieutenant Alexander W. Robertson, late Surgeon Captain, East Indian Railway Volunteer Rifles; temporary Lieutenant Herbert T. du Heaume, late Captain, Royal Jersey Artillery Militia; temporary Lieutenant Richard R. K. Paton; and temporary Lieutenant Arthur A. Hudson, late Captain, Cape Medical Staff Corps. Dated July 27th: George Arthur Skinner, Home Hospitals Reserve.

The appointment to a temporary Lieutenancy of Andrew L. E. F. Coleman is antedated to April 10th.

George Dreyer to be temporary Honorary Captain (dated July 12th).

The undermentioned Lieutenants of the Canadian Army Medical Corps to be temporary Lieutenants:—Dated June 30th: Havelock Thomas Lippiatt, John Sangster McCallam, Daniel Wade Davis, Peter McGibbon, Samuel James Staples, and Adolphe Drouin.

John Loudon to be temporary Lieutenant (dated May 15th).

The undermentioned are granted temporarily honorary rank as stated whilst employed with the St. John Ambulance Brigade Hospital:—Dated July 14th: Lieutenant-Colonel and Honorary Colonel C. J. Trimble, C.M.G. (T.F. Reserve), and Captain Sidney M. Smith, R.A.M.C. (T.F.), to be Majors. Thomas Houston, John Elder MacIlwaine, Charles W. M. Hope, Francis W. Goyder, Rowland W. Collum, and Percival T. Crymble to be Captains. Alan D. Brunwin, Frederick Hall, John M. McCloy, Charles E. Butterworth, William R. Mason, Joseph V. S. Taylor, Herbert de L. Crawford, James Beckett, Andrew C. McAllister, and William D. Coplestone to be Lieutenants.

The undermentioned to be temporary Honorary Lieutenants:—Dated June 22nd: Andrew Francis Honyman Rabagliati, whilst serving with No. 4 British Red Cross (Sir Henry Norman's) Hospital. Dated July 9th: William Frank Thompson, Henry Dundas McCall, Thomas Burges Welch, Andrew Hunter Little, Alfred Noel Garrod, and John Llewellyn Davies. Dated July 10th: Rufus Clifford Thomas. Dated July 13th: Frederick William Watkyn-Thomas. Dated July 14th: Gervas Charles Wells-Cole and Gordon Doulton East.

The undermentioned to be temporary Lieutenants:—Dated May 11th: Tom Jays. Dated May 20th: Richard Perrott Hadden. Dated May 27th: Arthur Stanley Richmond. Dated June 1st: Arthur Geoffrey Owen. Dated June 10th: Henry Marcus Culpepper Green and Edward Hamilton Black. Dated June 16th: Alexander Carruthers Bryson. Dated June 17th: William Henry Parsons and Moses Chesley Roberts. Dated June 18th: Walter Scott. Dated June 24th: Lieutenant George Marie Gregoire, Canadian Army Medical Corps. Dated July 1st: Lieutenant Ian Ronalds MacLeod, from 8th (Reserve) Battalion, The Queen's Own Cameron Highlanders, Arthur Montgomery Marsh Roberts, Denis Salmon Page, Walter Annesley Thompson, William Henry Compton, John Percy Musson, George Beresford Noble Flanagan, Hugh Cragie Gibson, and Robert Marshall. Dated July 3rd: John Victor Holmes, Archibald Tisdall Johns, Archibald Graydon, William Rous Kemp, and Oscar Rudolph Percy Muller. Dated July 4th: Graham Wilson Christie, James Bayley Butler, Dudley Jeaffreson, Daniel Steel Macbean, Thomas Divine, William Edward Peck, Colin Gordon, Richard Hugh McGillycuddy, Thomas James Golding, Ranald MacDonald, George Henry Rodolph, Ernest Llewelyn Davey, and Archibald Buchanan Laidlaw. Dated July 5th: George Blacker Elliott, Joseph Corbett Muir, Basie Lockhart Livingstone-Learmouth, Wellesley Roe Allen, Theo Jenner Hooper Hoskin, Alexander Robb-Smith, Robert Wilson Sutherland, John Lunn, Thomas McCosh, Ewen George Macpherson Gilchrist, Christian Philip Sydney Allingham, and John Daly Nicolas. Dated July 6th: Henry Harper Hulbert and John Patrick Shaw. Dated July 7th: William Lumsden, James Brown, Henry Faithful Smith, Alexander Butchart MacArthur Thomson, Robert Briffault, Ernest Harding Freeland, William Harrison Thresher, Charles Marshall Dickinson, Isaac Whitla Corkey, John Edward Pellow, George Robert Gray, Bryan Bentley Metcalfe, William Browne, Richard Craven, Donald Duncan, Frederick Crichton Matthew, Arthur King, and William Clow. Dated July 8th: Thomas Fleming Stevenson Fulton, William Thomas Mills, Peter Christian Lornie, George Redpath, and Charles Voughton Knight. Dated July 9th: William Edward Stevenson, Edgar Nesbitt Coutts, and Donald John Gair Johnston. Dated July 15th: Henry Charles Meacock.

The undermentioned temporary Lieutenants relinquish their commissions: George W. Armstrong (dated June 25th) and Lee Smith (dated July 16th).

INDIAN MEDICAL SERVICE.

The successful candidates at the recent Indian Medical Service examination for commissions, whose names were published in our last issue, have been admitted to the service as lieutenants with effect from July 16th.

SPECIAL RESERVE OF OFFICERS.

Royal Army Medical Corps.

The undermentioned Lieutenants to be Captains:—Kingsmill W. Jones, Sinclair Miller, William A. Miller, David M. Lyon, John R. Hayman, Edward A. Wilson, Arthur J. Brown, Philip S. Vickerman, Ludwig S. B. Tasker, Robert C. Dickson, David Gilmour, Harold W. Hills, Thomas S. Nelson, George R. Grant, Joseph H. Ward, Robert A. Hepple, Joseph Walker, Robert C. Aitchison, Owen Wilson, John Campbell, Edmund T. H. Lea, Rowland B. Campion, Charles G. H. Morse, Malcolmson K. Nelson, Samuel Wright, Frederick Jefferson, William Tyrrell, William C. Davidson, Alexander D. de Avray, Archibald M. McCutcheon, William O. Tobias, Allan C. Perry, Travis Hampson, James Gossip, John A. Pridham, Harry Evans, Edmund T. Burke, Harry C. Sinderson, Sydney F. M. Cesari, James Rafter, Francis G. Foster, Walter E. Elliott, Herbert S. Griffith, Francis O. L. Moore, William W. Wagstaffe, Christopher Atkinson, Douglas R. King, Thomas I. Dun, Hugh K. Ward, Henry W. Maltby, Allan D. Fraser, Basil W. Brown, Thomas J. Kelly, John Taylor, Henry H. Mulholland, James J. Finlay, Arthur P. Kennedy, Frederick L. Tulloch, William Bird, Howell Gwynne-Jones, Robert Montgomery, George E. Pepper, William A. Letham, Ernest F. W. Grellier, Henry C. Rook, Donald J. Armour, Owen Hairsine, Thomas O. Graham, Thomas W. Wylie, Alexander J. Gibson, Raymond J. Clausen, Andrew Picken, Richard O'Kelly, Ewen S. Macphee, John P. Huban, Albert F. L. Shields, Thomas M. Davie, Campbell McN. McCormack, Evan Davies, John G. Ronaldson, Robert L. Horton, Hubert C. G. Pegler, Thomas Warrington, James C. Brash, Alexander C. Jebb, John A. O'Driscoll, Francis G. Macnaughton, William McM. Chesney, Ivan M. Pirrie, William Walker, John F. W. Sandison, Patrick Walsh,

Idris D. Evans, Thomas W. Clarke, Francis D. Annesley, Ian D. Suttie, Henry C. Bazett, Francis H. Guppy, Cyril J. A. Griffin, Robert Ellis, Charles D. M. Buckley, John C. A. Dowse, Harry E. B. White, Frank Cook, Francis G. A. Smyth, Clifford W. Sparks, Richard A. Preston, Arthur B. Preston, Albert G. W. Compton, Charles H. Thomas, George V. Stockdale, Ennis R. Chambers, George Dalziel, Clark Nicholson, David C. L. Vey, William A. N. Fox, John H. Beverland, William Dunlop, Harry E. Creswell, Henry K. V. Soltau, William C. Mackie, John L. Perceval, Richard E. Grandy, Joseph C. A. McCalden, William B. Alcock, Charles F. Hacker, James K. J. Haworth, Lawrence H. W. Iredale, James Purdie, Maurice A. O'Callaghan, Cedric O. Shackleton, Kenneth D. Murchison, Osborne H. Mavor, Archibald B. Mitchell, Robert G. Bannerman, Frederick J. H. T. Frere, Alexander Glen, John H. Magoveny, Henry S. Baker, James C. Young, Samuel K. Young, Cyril J. B. Way, Ronald Stewart, John W. McNee, Frank P. Freeman, Eric K. Ryan, George M. Roberts, Oswald C. S. Tandy, James Y. Moore, Thomas C. Storey, Walter V. Tothill, William Barclay, John L. Kilbride, Hugh G. Trayer, Alfred L. Robertson, William C. B. Meyer, Charles N. Gover, Andrew A. Fyffe, Albert A. Atkinson, James R. McCurdie, David C. Barron, John W. Cannon, Frederick G. Flood, John A. W. Ebden, Stanley Wickenden, William Fotheringham, Austin Smith, Harry Nield, Thomas C. Kidner, Claude W. Treherne, Sidney W. Rintoul, Clement Lovell, Archibald W. Russell, Frank Crosbie, Francis A. Belam, Ernest A. Dyson, William F. Wood, Edward R. Lovell, Bernard Goldsmith, Richard A. Stewart, Frank S. Gillespie, Robert R. G. Atkins, Hamilton B. Goulding, William E. Tyndall, George S. McConkey, Kenneth K. Drury, Daniel Dougal, George A. Bridge, Roger D. D. D. Brownson, Charles A. McGuire, Archibald J. Gilchrist, Alexander J. Ewing, William R. Blore, Frederick A. Bearn, Francis M. Taylor, Herbert M. Pope, Harold E. Rose, Richard N. O. Moynan, Joseph B. Williamson, Edward B. Marsh, Frank G. Lescher, William T. Quinlan, Henry W. Evans, Peter F. Ward, Morgan J. B. F. Burke-Kennedy, John V. L. Grant, John W. Craw, Francis Balkwill, William W. MacNaught, Leonard J. Sheil, Verney Wiley, Cyril Armstrong, Alexander B. Footz, Norman L. Joynt, Thomas MacK. Miller, George G. Marshall, Mark Avent, Edmund B. Jones, James Vallance, Joseph A. L. Wilson, Hugh S. Pemberton, Geoffrey W. Wood, Robert E. Bell, Leonard F. Browne, John C. Pyper, James Lanigan, John P. Stallard, Ernest Talbot, John P. Litt, John Paulley, Henry B. Sherlock, Douglas G. Evans, Timothy F. Hegerty, William S. Haydock, Richard P. Ballard, John Le M. Kneebone, William J. Adie, Frank Griffith, William W. Shorten, Richard A. Austin, Alfred J. Clark, Geoffrey Marshall, Bernard Grellier, William S. Birch, Cuthbert H. Attenborough, Harold J. S. Morton, Reginald H. Leigh, Edward S. Walls, Alfred M. Thomson, James Davidson, William Johnson, Adiel E. H. Reid, John H. Pendered, James B. Scott, John P. Mitchell, Ronald G. J. McEntire, Edward C. Linton, John P. Davies, David W. John, Arthur L. Shearwood, George R. Bruce, Samuel W. M. Jones, Patrick McDonnell, Bernard Murphy, William H. Wood, Ernest M. Cowell, Geoffrey N. Smyth, Peter W. Ransom, Kenneth Biggs, John B. Minch, Henry A. Harbison, Frank R. Kerr, Cyril Popham, David S. Badenoch, Bertram Shires, Oriel J. O'B. O'Hanlon, Archibald Wilson, William G. Shakespeare, Samuel D. G. McEntire, Griffith L. Jones, Joseph I. Lawson, William Campbell, Hugo R. Friedlander, Cassidy De W. Gibb, Philip J. Gaffikin, Gerald G. Alderson, Pensam Thornton, Bryan M. Tuke, William H. Cornelius, Frank Sykes, Leslie H. W. Williams, James Macallan, Kingsley W. Lewis, Charles L. Balkwill, Robert G. Martyn, Frederick V. Bevan-Brown, William McCombie, William J. S. Ingram, Matthew W. Paterson, David Mackie, David M. Marr, Alexander L. Robb, George A. Cole, Geoffrey S. Trower, Eric Catford, John McKerchar, Eric W. Williams, Hugh C. Crawford, John E. Foley, James C. Spence, Robert P. A. Kirkland, Grantley D. Read, John E. Allan, Arthur F. I. Patterson, Gerald P. Kidd, Trevor B. Heaton, Richard F. Fagan, John H. Owen, Richard P. Ballard, Robert Hay, William A. MacLennan, John Cowan, George H. C. Mold, Frank H. Kennedy, Gordon A. Hodgson, John F. Hill, Hugh C. Sorrie, Thomas G. Shand, Alfred P. Smith, William H. Sheppard, Herbert Smith, Cecil J. Rogerson, Patrick J. Corcoran, Norman Cameron, Charles F. Burton, John R. Caldwell, John N. McIntosh, Claude J. D. May, Stewart D. Robertson, Richard H. Hodges, Thomas K. Boney, Armando D. Child, Jeremiah J. Magner, Hector Smith, John A. Ryle, Kingsley L. O'Sullivan, George F. Clifton, Ernest F. Guy, Charles H. G. Penny, Thomas W. Martin, James E. Black, Edwin C. W. Starling, John S. Cocks, Gerald T. Mullally, Ronald C. Ozanne, Gerald F. P. Gibbon, Cyril Jacobs, Lionel A. Lewis, Neale L. Lochrane, Walter A. Elliott, Samuel A. Lane, Colin Grant, Francis A. Roddy, Joseph W. P. Harkness, Cecil L. Gaussen, William S. Wallace, Donald C. Scott, Harold A. Crouch, Wilfred B. Wood, Herbert S. Milne, William C. Hartgill, John S. Pooley, Quentin V. B. Wallace, Gilbert A. Harvey, William H. Nicholls, Charles A. Mason, Arthur A. Smalley, Henry Alcock, John Kennedy, Thomas F. Kennedy, John Cameron, John Stevenson, Maurice P. Inglis, Kenneth A. M. Tomory, Richard G. Waddy, Bertrand C. O. Sheridan, Hugh A. Fawcett, John R. N. Warburton, Mathew McKnight, John S. Sloper, Arthur L. Anthony, John Deighton, Cromwell Gamble, Herbert L. Garson, William K. Russell, Charles G. Waddington, George W. Watson, Colin Wilson, William A. Young, Henry S. A. Alexander, James R. C. Mackintosh, Harry N. Stafford, Wilfred W. Phillips, Robert I. Sullivan, Ronald W. Duncan, Joseph P. Quinn, John H. Sewart, James B. Fotheringham, Cecil S. Staddon, Johann F. Van der Westhuyzen, Andrew R. Ross, Claude H. Fischel, Frederick M. Lipscombe, Harry P. Rudolph, Robert W. S. Murray, William H. Elliott, Gifford T. Van der Vyver, Allan B. Hawkins, Leo B. C. Marksman, Alexander G. S. Wallace, William M. Dickson, James L. McBean, Frank M. Barnes, Douglas N. Macleod, Thomas G. Fleming, James Swan, Edgar L. F. Nash, Richard P. Starkie, Ivan L. Waddell, David S. Martin, Robert A. Anderson, Thomas Sheedy, William M. Lansdale, John G. Bennett, Thomas P. Inglis, Francis C. Lapage, George B. Hadden, Hallowes L. Addison, Francis J. Hallinan, Charles R. McIntosh, Gerald C. Dixon, Joseph H. Baird, John J. D. La Touche, John S. Dockrill, Thomas H. S. Bell, Henry P. Whitworth, Francis A. Duffield, John J. Molyneaux, Wellington J. A. Laird, Robert P. Cormack, George A. MacDonald, William D. Anderton, Howell M. Williams, Frederic Sanders, George S. Pirie, Edwin J. Bradley, Frank Oppenheimer, James W. Wood, and George M. Scott.

Temporary Lieutenant Ronald Wingrave Duncan, from Royal Army Medical Corps, to be Lieutenant.

Cadet Walter Barham Foley, from the University of London Officers Training Corps, to be Lieutenant (on probation).

TERRITORIAL FORCE.

Royal Army Medical Corps.

Notts and Derby Mounted Brigade Field Ambulance: Captain Francis R. M. Heggs, from the Territorial Force Reserve, to be Captain (temporary). Walter Bailey-Thomson to be Lieutenant.

3rd Home Counties Field Ambulance: Lieutenant Alfred E. L. Devonald to be temporary Captain.

1st Scottish General Hospital: Cadet Patrick Thomas Catto, from Aberdeen University Contingent, Senior Division, Officers Training Corps, to be Lieutenant.

3rd Scottish General Hospital: John Patrick to be Captain, whose services will be available on mobilisation.

North Midland Mounted Brigade Field Ambulance: Herbert William Greig to be Lieutenant.

2nd South Midland Mounted Brigade Field Ambulance: Nelson Johnstone (late Surgeon-Lieutenant, 3rd Volunteer Battalion, The Bedfordshire Regiment) to be Lieutenant.

3rd East Anglian Field Ambulance: Lieutenant Montague A. Cholmeley to be temporary Captain.

1st Highland Field Ambulance: John Bichan Foubister to be Lieutenant.

1st West Lancashire Field Ambulance: Major William T. Blackledge, from 2nd West Lancashire Field Ambulance, to be Lieutenant-Colonel (temporary). Captain Henry Halton, from Attached to Units other than Medical Units, to be Major.

6th London Field Ambulance: Richard Thompson Cæsar to be Lieutenant.

2nd Lowland Field Ambulance: Robert Kyle to be Lieutenant.

2nd West Riding Field Ambulance: Captain Francis G. Dobson to be temporary Major.

2nd Welsh Field Ambulance: Lieutenant Evan D. Richards, from Attached to Units other than Medical Units, to be Lieutenant.

3rd Welsh Field Ambulance: Captain Ernest Brice to be temporary Major.

1st Wessex Field Ambulance: Captain Stanley L. Brimblecombe, from Attached to Units other than Medical Units, to be Captain.

3rd Wessex Field Ambulance: Captain William A. Valentine, from Attached to Units other than Medical Units, to be Captain.

1st Northern General Hospital: William Johnston to be Lieutenant.

2nd Northern General Hospital: The undermentioned Majors to be temporary Lieutenant-Colonels: Walter H. M. Telling and Walter Thompson. Major George W. Watson to be transferred to the permanent personnel. The undermentioned Captains to be temporary Majors: Arthur L. Whitehead, Leonard R. Braithwaite, Rawdon A. Veale, and Charles W. Vining.

5th Northern General Hospital: Montagu William Williams to be Captain, whose services will be available on mobilisation. Arthur Foster (late Surgeon-Lieutenant, 1st Volunteer Battalion, East Lancashire Regiment) to be Captain, whose services will be available on mobilisation.

purity chemically, by means of lime. The B. coli results in particular were remarkable, the end results of treatment showing that B. coli was absolutely devitalised, a result which, apart from sterilisation, cannot, Dr. Houston states, be achieved by any known process of water purification. The effluent from the first tank, he adds, could not conceivably have contained any of the microbes of epidemic water-borne disease. These are strong words, but they appear to be justified by the results of the very careful examinations made.

PLUMBISM DUE TO THE USE OF A COSMETIC.

Dr. L. R. Sante has reported, in the *Journal of the American Medical Association*, two cases of plumbism due to an unusual cause—the use of a cosmetic. A single woman, aged 21 years, was admitted into hospital with the history that she had been in perfect health until four years ago, when she was seized with abdominal pains while at business, and for three weeks she was confined to bed with griping pains, followed by cramps in the legs. She returned to work, but a week later had a similar attack. She became jaundiced, with pain localised in the right hypochondriac region, and was sent to hospital for operation, which she declined at the last moment. No gall-stones were ever passed. From this time she had periods of illness and operations were proposed for gall-stones, appendicitis, and exploration of the abdomen. A year after the first attack she noticed pain and tingling in the extremities and loss of power in the hands and wrists. She grew worse with succeeding attacks until the fingers were so retracted into the palms as to render extension impossible. She finally could not walk. On examination she was poorly nourished and very anæmic and the extremities were very tender. There was a marked "blue line" over three teeth. The muscles of the upper limbs, especially in the forearms and hands, were markedly atrophied. Extension of the wrists was impossible and the reaction of degeneration was present. There was considerable atrophy of the muscles of the thighs, but the knee- and ankle-jerks were present. Peripheral neuritis from lead was diagnosed and the patient was questioned as to possible sources. She finally admitted that she had used "flake-white" as a face powder. It was mixed with glycerine and applied so as to make a smooth velvety covering. The anæmia was so profound that the red corpuscles were reduced to 2,750,000, and stippled cells were present. The urine contained a little albumin and casts. She ceased to use the powder, and after seven days all the stippled cells had disappeared from the blood. In six months she gained 30 lb., the red corpuscles rose to 4,000,000, and the wrist-drop disappeared. In the second case the patient was a woman, aged 50 years, who had used "flake-white" for 10 years. For three years she had numerous attacks of abdominal pain with cramps in the muscles, and at times was jaundiced. She was operated on for gall-stones, and several were removed, but there was no decided improvement, and the attacks of colicky pain continued. Eleven months later the nerve trunks of the limbs were very tender, and she had lost power in the forearms and hands. On examination she was confined to bed, ill-nourished, very anæmic, and slightly jaundiced. A "blue line" was present on both the upper and lower gums. There was extreme atrophy of the muscles of the forearms with wrist-drop. The lower limbs were atrophied, but the knee- and ankle-jerks were present. The face powder was discontinued, and in seven months nearly 100 lb. were gained in weight, the anæmia diminished, and the wrist-drop disappeared. "Flake-white" is carbonate of lead. Dr. Sante points out the frequency with which toxic effects due to this face powder must be overlooked. "Out of the thousands of girls who use it" (to use the words of one of the patients), there must be many on whom it has untoward effects which do not amount to characteristic plumbism. No doubt many obscure conditions for which no cause can be found are thus produced. In the first case 17 different diagnoses had been made and laparotomy proposed four times. Dr. Sante rightly says that such a dangerous preparation should not be sold as a face powder, especially without a poison label. As far as we know, no face powder containing lead is used in this country. The usual ingredients are starch, carbonate of bismuth, and oxide of zinc.

TEETH-GRINDING AND ADENOIDS.

BOTH in the East Indies and Utrecht Dr. Benjamins[1] has noted the frequency with which the presence of adenoid vegetations in children is associated with the habit of grinding the teeth during sleep at night. In each locality he has dealt with 250 cases of adenoids, and he gives the following figures, based on the 500 cases, representing the percentages of the patients exhibiting the following signs of adenoids:—

Snoring	60 per cent.	Aprosexia ...	33 per cent
Catarrh	46 ,,	Enuresis ...	32 ,,
Deafness ...	41 ,,	Enlarged tonsils	25 ,,
Teeth-grinding	34 ,,		

Out of 325 of the cases 47 per cent. were mouth-breathers and 43 per cent. spoke with nasal voices. Among all his patients Dr. Benjamins counted 20 instances of epistaxis, 11 of bronchial asthma, and 8 of stammering. Operations for the removal of adenoids were performed on 55 patients with teeth-grinding, and 42 were cured of the habit, 8 improved, and only 5 continued to grind their teeth as before. The habit may be acquired, as he points out, very early in life. Two of his teeth-grinding patients were aged 10 and 12 months respectively, each having four teeth in each jaw; the oldest patient was 21 years of age. The larger the adenoid growths in any case the greater is the probability that the patient will grind his teeth; the enlargement of the tonsils, contrariwise, seems to be of little influence here, as it occurred in only 42 out of 172 teeth-grinding patients. The ages of Dr. Benjamins's patients were as follows: 11 were under 3 years of age, 106 were aged 3 to 5 years, 219 were 6 to 10, 130 were 11 to 15, 26 were 16 to 20, and 9 were 21 years or more. He believed that patients with adenoid vegetations exhibit an increased reflex irritability, and that it is this, rather than anything in the nature of CO_2 poisoning, that makes them liable to nocturnal enuresis, teeth-grinding, and the like. In the case of teeth-grinding he assumes that the receptive field, or point of departure, of the reflex lies in the mucous membrane of the naso-pharynx. The afferent path is through the glosso-pharyngeal nerve or the pharyngeal branches of the spheno-palatine ganglion.

[1] Nederl. Tijdschrift voor Geneeskunde, Amsterdam, 1915, vol. ii., p. 570.

Neurons in the mid-brain presumably act as connecting links to set in action the motor nerve cells of the trigeminal nerve, particularly those supplying the pterygoid muscles.

MATERNITY HOSPITALS AND MATERNITY BENEFITS AT DUNDEE.

A CONFERENCE was recently held in the city chambers at Dundee between representatives of the Royal Infirmary and the Approved Societies to consider how the work of maternity hospitals might be brought into line with the objects of the Insurance Act. Any scheme which is designed to promote the preservation of infant life is at the present moment assured of a respectful hearing. One of the most direct ways in which this object can be achieved is now known to be by care and attention to the infant during the first few days of life. A carefully supervised puerperium, combined with such antenatal care as can be easily organised by an up-to-date maternity institution, is now recognised as one of the most practical means of securing this end. The well-intentioned objects of the maternity benefit have often miscarried, and many plans to amplify and reform the Act, as far as it applies to the care of the mother and child, have been, and are, under consideration. Dundee now comes forward with a proposal that Approved Societies should administer their funds in connexion with the maternity benefits in such a way as to utilise the resources of existing maternity institutions by contributing in kind to their funds and by making use of such facilities as they afford for lying-in purposes. Professor J. A. Kynoch, representing the hospital authorities at the conference, observed that enormous advantages would accrue from a closer understanding between Approved Societies and maternity hospitals. On the one hand, the maintenance of the lying-in charities would be assured by the financial contributions of the Approved Societies; and, on the other, the health of the mothers and infants would benefit by the more skilful supervision they would receive under such an organised system of medical relief. Their objects were the same—the saving of the lives of mothers and infants and the preservation of health. It was an urgent national demand, and he could conceive no better means of its achievement than by a close coöperation between Approved Societies and maternity hospitals. We wish the scheme every success.

THE OCULOCARDIAC REFLEX.

AN interesting study of the oculocardiac reflex is provided in the *Archives of Internal Medicine* of May 15th, 1915, Part I., by Dr. Samuel A. Levine, of Boston. He first gives a useful review of previous work upon this subject, and then records his own observations upon a series of cases, with special reference to the differences between right and left vagal and ocular pressures in tabetics and non-tabetics. The oculocardiac reflex was first observed by Aschner in 1908. He noticed that pressure on the eyeball caused slowing of the pulse and decrease in the depth of respiration, and, further, that this pressure would arouse stuporous, anæsthetised, and unconscious patients. He further demonstrated that in narcosis this reflex persists longer than the corneal and pupillary reflexes. He proved by experiment that the afferent impulse passed through the trigeminal nerve and that the efferent path was the vagus. Loeper and Mougeot studied this reflex in the hypervagotonic and hypersympatheticotonic varieties of gastric neurosis, and found that it was exaggerated in the former and diminished or absent in the latter. Lesieur, Vernet, and Petzetakis, after a study of the oculocardiac reflex of epileptics, found that it, together with the tendon and cutaneous reflexes, was exaggerated. They also found that the right eye responded more strikingly and with slighter pressure than the left. They noted that ocular pressure caused glycosuria in 3 out of 6 cases of epilepsy. The same observers found the reflex absent in 15 out of 16 cases of Parkinson's disease. In 4 cases of multiple sclerosis this reflex was absent in 1, accelerated in 2, and normal in 1. Of 6 cases of general paresis the reflex was exaggerated in 4 and normal in 2. Miloslavich in 1910 first observed that the reflex was absent in tabes dorsalis. Other observers have confirmed this and demonstrated, further, that it is often absent in other syphilitic diseases of the nervous system. It is usually exaggerated in Graves's disease. Mougeot and Loeper believe that in general this reflex is maintained in tachycardias and in bradycardias of nervous origin, while it is lost in those due to myocardial disease. It has been found that atropin in a dose of 0·02 mg. injected subcutaneously abolished the reflex for a period of 1–3 hours. Dr. Levine has carefully studied a number of patients in regard to this reflex, taking electrocardiograms to serve as controls. As far as can be judged the pressure employed is equal to about 30 mm. of mercury. The eyelid is closed, the operator's thumb applied under the supraorbital ridge not directly over the cornea, and the pressure usually continued for about six or seven seconds. The general results obtained can be briefly summarised as follows: Ocular pressure affords a simple and safe method of obtaining reflex vagus inhibition of the heart, and this inhibition is more profound and more frequently obtained than by pressure over the vagus nerves. It is generally absent in tabes dorsalis, present in pneumonia, syphilis (non-tabetic), and chronic valvular disease. It was absent in one case of diabetes mellitus and also in one case of auricular fibrillation, though it was present in the latter after the administration of digitalis. Right ocular pressure has a slightly greater effect on the rate of the heart than left, while left ocular pressure has a greater effect on the conduction mechanism of the heart than the right. It may lengthen auriculo-ventricular conduction and cause partial heart block. Dr. Levine's paper gives an interesting summary of our knowledge of this reflex, and his own observations form a noteworthy contribution to the subject.

THE General Medical Council will vacate its present building, 299, Oxford-street, towards the end of November, 1915. As the new premises in Hallam-street will not be completely prepared for occupation by that date it has been arranged that the autumn session of the Council shall begin on Nov. 2nd in the old building. The Executive Committee will meet on Monday, Nov. 1st. It is expected that the business of the Registration Office will be transferred to 44, 46, and 48, Hallam-street by Nov. 25th.

WE are asked to state that the Royal Society of Medicine will be closed during August.

THE ANNUAL REPRESENTATIVE MEETING OF THE BRITISH MEDICAL ASSOCIATION.

THE usual annual meeting of the British Medical Association, which was to have been held this year at Cambridge, was dropped owing to the war, and the annual Meeting of Representatives of the British Medical Association was held at the Connaught Rooms, Great Queen-street, W.C., on July 23rd and 24th, Mr. T. JENNER VERRALL, Chairman of Representative Meetings, presiding. The attendance was small owing to the number of representatives engaged either on military duty or in doing double work. To meet the special circumstances brought about by the war standing orders were suspended to regularise the continuance in office for a second year of Sir Alexander Ogston, K.C.V.O., as President of the Association, Sir T. Clifford Allbutt, K.C.B., LL.D., as President-elect, and Dr. W. Ainslie Hollis as Past-president. A favourable financial report was received owing to the increase in the annual subscription and the lessened expenditure, especially in connexion with the National Insurance Act.

The meeting received a statement by the Council as to the efforts made to help the War Office in securing medical men for the army, also in attempting to obtain redress of grievances, particularly those of Territorial and Reserve officers. An amendment to the effect that the scheme for the free medical attendance of dependents of soldiers and sailors should be discontinued from July 31st, 1915, was rejected.

The grievances and disabilities causing service with the army to be withheld were discussed at some length. Mr. Verrall, as chairman of the committee which has negotiated on behalf of the Association with the War Office, said he could give but slight hope that the terms of service would be improved, as a supply of men in fairly large numbers was still being obtained on the present terms. He thought that more might be achieved as the result of the Association's representations urging the grant of a higher gratuity on quitting the service. It was mentioned that the war register of the Association was expected soon to cover 75 per cent. of the profession. The meeting urged the Council to continue its efforts to secure redress of grievances as to remuneration and conditions making it difficult to enlist, and appointed a special War Emergency Committee to include six coöpted members representative of universities, colleges, and other medical bodies. Sir William Osler, Sir T. Clifford Allbutt, Mr. A. E. Shipley, and Mr. T. Jenner Verrall were elected to the committee by the Representative Meeting. Scotland was definitely excluded from the scope of the committee. The establishment of a special fund to help practitioners or their dependents adversely affected by reason of services to the country was somewhat half-heartedly urged. Representatives were reminded of the difficulty experienced in raising other special funds, and it was also pointed out that many of the younger practitioners would not lose, but rather gain, financially through war service. Ultimately the question was left to the Council to consider.

Federation with other medical bodies was again considered, and the opinion was expressed that, although the Association could not legally extend its objects so as to become a federation of medical societies, it would welcome any constitutional method by which it might come into closer relationship with societies formed to safeguard the interests of sections of the profession. The principle of adding to standing committees members of the Association representative of outside societies was approved, and the Council was instructed to confer with other organisations with a view to promoting closer relationships and to report to the next annual Representative Meeting.

An interesting discussion took place as to the extent to which "decisions" of the Association are binding upon divisions and members individually.

With the object of securing greater local autonomy and the enforcement in some areas of policies which might not be applicable in others, a resolution was proposed that any decision of a division (subject to veto by the Council) should be deemed the policy of the Association for that area. The resolution was lost by a large majority.

A revised set of rules for the conduct of ethical cases, framed with legal assistance, was adopted by the meeting.

The question of professional secrecy was also considered in its relation to persons on trial on criminal charges, and the Council advised the Representative Meeting to adhere to its previously expressed opinion that a practitioner should not disclose voluntarily information obtained from a patient in the exercise of his professional duties, and that the State had no right to claim that an obligation rested on a practitioner to disclose such information. The meeting reaffirmed this view, and in the discussion it was urged that privilege should be definitely conferred by law upon practitioners so that they might be in the same position with regard to confidences reposed in them as were solicitors and ministers of religion.

With regard to contract rates for juvenile members of friendly societies, the Council advised that a lower rate for children could not be entirely resisted, but that it should only apply to the children of insured persons, and not be less than 4*s.* 4*d.* per annum from ages 3 to 16. The opponents of contract practice, however, regarded this proposal as a weakening of the Association's earlier position, and an amendment that the report be not approved was carried.

A report on the present state of the law with regard to the legal responsibility for crime was approved.

Improvements in the conditions of service of assistant asylum medical officers were discussed, and several resolutions were passed aiming at preserving the rights of the general practitioner in regard to State medical treatment of school children and contemplated extensions of public medical services, e.g., in relation to maternity and child-welfare schemes.

The Council proposed a compromise with regard to outstanding difficulties with Welsh medical aid institutions. Some criticism was offered from other parts of the country where the profession has trouble in these matters, but ultimately it was agreed that it was inadvisable to take exception to the acceptance by members of the Association of appointments to existing institutions in Wales and Monmouthshire, subject to certain requirements being satisfied, but that the strongest opposition be offered to any extension of similar institutions or schemes.

An interesting discussion took place on the question whether doctors making examinations on behalf of life assurance companies should receive fees to some extent proportioned to the size of the policies, just as an architect's fee is proportioned to the size of the structure. The opinion was expressed that companies would be more likely to obtain second and third opinions than pay a single medical practitioner a larger fee than 1 guinea. No resolution followed on the debate.

The business in connexion with the Insurance Act was not great. In regard to the domiciliary treatment of tuberculosis, a note of warning was sounded as to attempts to deprive private practitioners of their share in this work, and it was pointed out by the Council that the most promising cases for treatment—the early ones—could not be discovered but for the vigilance of the general practitioner. The position of the profession with regard to the effect of enlistments upon the finance of medical benefit was crystallised by the following resolution:—

> That the profession notes with alarm the disturbance of the probable sickness incidence of insured persons owing to the withdrawal of healthy lives by enlistment in the army, with the probable return of many unhealthy lives into the insured classes at a later day; and also the reduction of advances of grants by the Insurance Commissioners to the different Insurance Committees.

Mr. E. B. Turner (deputy chairman of Representative Meetings) was elected to the chairmanship, Mr. Verrall having signified that he did not seek re-election. The proceedings closed with a cordial vote of thanks to Mr. Verrall for his valuable services.

DONATIONS AND BEQUESTS.—The late Mr. William Simpson, of Halifax and Bradford, has left by will contingent bequests of £2000 each to the Halifax Royal Infirmary and the Society for the Prevention of Cruelty to Children.—King Edward's Hospital Fund for London has received a contribution of £2000 from the Drapers' Company, being the half-yearly payment of their annual subscription of £4000.

THE BELGIAN DOCTORS' AND PHARMACISTS' RELIEF FUND.

THE WEEK'S SUBSCRIPTIONS.

THE following subscriptions to the Fund have been received by Dr. Des Vœux:—

	£	s.	d.
Dr. A. B. Olsen	1	1	0
C. A. S.	50	0	0
Dr. McCrea	1	1	0
Mr. N. Howard Schollar	1	1	0
Anonymous (R. C. C.) ...	0	2	0
North of England Branch of Fund (per Dr. James Don and Mr. A. S. Perceval, Hon. Secs.) (seventeenth donation, total £770 17s. 9d.)—			
Dr. G. W. Scott	6	2	6
Dr. G. Hickey	9	12	6
Dr. J. M. Gray	12	12	6
Dr. A. McIntosh... ...	2	2	0
Dr. A. Rodgers	2	0	0
Dr. T. B. Martin... ...	5	0	0
Dr. J. Wells	4	4	0
Dr. J. B. Waters	1	0	0
Dr. A. S. Morison ...	0	10	0
Dr. Burdon Cox	4	5	0
Dr. H. K. Wallace ...	11	0	0
Leeds and West Riding Medico-Chirurgical Society (per Dr. Barrs) (second donation, total £76 12s. 6d.)—			
Dr. M. T. Stewart ...	2	2	0
Dr. R. H. Hall	2	2	0
Dr. Way...	1	1	0
Dr. Watson	3	3	0
Dr. R. A. Veale	2	2	0
Dr. Green	1	1	0
Dr. Irving	2	2	0
Dr. H. T. Mackenzie...	1	1	0
Dr. Lewer	2	2	0
Dr. Hargreaves	1	1	0
Dr. Holdsworth	2	2	0
Dr. Dodd	1	1	0
Southern Branch, B.M.A. (per Dr. James Green, Hon. Soc.) (ninth donation, total £63 16s. 6d.)—			
Dr. A. A. Mackeith ...	1	1	0

In the list published on June 19th an anonymous subscription of £168 was acknowledged from Christchurch, New Zealand, which had been paid through the Bank of New Zealand. A letter has now been received from Dr. L. S. Manning, of Christchurch, saying that the money had been cabled by him, as treasurer of the fund instituted by the North Canterbury Division of the British Medical Association.

Subscriptions to the Fund should be sent to the treasurer of the Fund, Dr. H. A. Des Vœux, at 14, Buckingham-gate, London, S.W., and should be made payable to the Belgian Doctors' and Pharmacists' Relief Fund, crossed Lloyds Bank, Ltd.

THE APPEAL FOR SURGICAL INSTRUMENTS.

Surgical instruments should be sent to the Master of the Society of Apothecaries, Apothecaries' Hall, Blackfriars, E.C.

THE NATIONAL INSURANCE ACT.

London Insurance Committee.

AT a recent meeting of the London Insurance Committee the Medical Service Subcommittee reported that in the case of one medical practitioner which had been laid before the Insurance Commissioners the Commissioners had directed that the practitioner's name should be removed from the medical list. Out of seven other cases of complaints against practitioners investigated by the subcommittee only one had been dismissed, but in another it was found that the practitioner "was guilty of a technical breach of his agreement with the committee in declining to continue to order atoxyl for the insured person concerned." The medical man in this instance may be said to have good reason to complain not only that he should have been found guilty of a "technical" breach of contract, but that he should have had to face an inquiry at all in the matter. His account of the case was that in prescribing atoxyl to an insured person suffering from locomotor ataxy with nervous complications he was carrying out the treatment recommended by the physician under whom the patient had been in a hospital for nervous diseases, and from whom he had received a letter enclosing a copy of a prescription and recommending its continued use for two years. He had treated the patient on the lines thus advised for a year, and in April, 1915, had had to appear before the subcommittee of the Panel Committee to answer a charge of excessive prescribing during April, May, and June, 1914. It was then alleged that the supply of atoxyl for the insured person concerned was not justifiable. No grounds whatever were given to him for this allegation, but he understood that the subcommittee presented a report to the Panel Committee recommending that he should be surcharged £1 0s. 9d. in respect of the use of atoxyl during the period in question. He considered that the atoxyl was benefiting the patient and that he was entitled to a continuance of it. He was therefore quite prepared to order it for him provided he was guaranteed immunity against a surcharge. The Panel Committee had not yet reported to the Insurance Committee as to whether there had been any excessive demand upon the Drug Fund through orders given by the practitioner being extravagant in character or quantity. The above case will be found rather more fully set out in the Medical Service Subcommittee's report, but the essential portions given above show that it is one of obvious and avoidable hardship of a serious character. It is submitted that a medical practitioner charged as above described with extravagant prescribing is entitled to formal notification at the earliest convenient date as to the opinion of the subcommittee holding an inquiry into his conduct. He could also, and should be, furnished immediately with a written statement, whereby he could regulate his treatment of any patient still under his care when extravagance has been alleged with regard to such patient. He ought, in short, to receive at once the written authority of the Panel Committee enabling him to continue the treatment, or directing to discontinue it, leaving the responsibility in the latter case for the patient's welfare to rest upon the subcommittee. It need hardly be pointed out that temporary uncertainty on the part of the medical man as to what is going to happen to him may seriously prejudice the patient. To bring a man up before a subcommittee, and then having told him that he has been extravagant, to bring him before another subcommittee of the same body for discontinuing extravagance is obviously unjust, and the above is not the first instance of this form of injustice which has occurred recently. (A case relating to the supply of bandages was referred to in THE LANCET of July 3rd.) A "technical" breach in such circumstances is, it is submitted, a most undesirable finding. A practitioner should either be found to have broken his agreement or not to have done so, and in any case no matter should be inquired into by a subcommittee which has already been inquired into by another subcommittee, unless the finding of the first has been such as to justify investigation by the second. The subcommittee inquiring into extravagance in prescribing should be able to give immediate indemnity in respect of the subject of a particular charge to a medical practitioner if it intends to surcharge him, or if, as may occur, it postpones its decision.

An Unfounded Complaint and its Result.

A formal apology has been received by the solicitor to the Medical Defence Union acting on behalf of Dr. W. Muir Smith, of Eastbourne, from Mr. G. M. Coward, of Warwick-street, Regent-street, in the following circumstances. A domestic servant, an insured person on the list of Dr. Smith, had been attended by him, but was afterwards sent to a hospital. Her employer, wishing to secure sickness benefit for her, applied to Dr. Smith, who refused a certificate because, in his opinion, the patient was not incapacitated while he was attending her. The employer, dissatisfied with this, apparently obtained the assistance of Mr. Coward in order to lay before the Insurance Commissioners a complaint which was referred to the Insurance Committee, and by it to the Medical Service Subcommittee in the usual course. The subcommittee dismissed the complaint after giving Mr. Coward an opportunity to amplify his complaint and to be heard in support of it, of which he did not avail himself. Dr. Smith obtained an official copy of the complaint as laid before the authorities and the apology records the regret of Mr. Coward who intervened in a matter with which he was not concerned and made representations for which there was no justification. May others take warning from his example. Dr. Smith is to be congratulated upon the conclusion of an irritating and disturbing episode, and the Medical Defence Union upon their conduct of the matter in his interest.

Princess Arthur of Connaught is training as a nurse at St. Mary's Hospital, Paddington, where she is engaged in helping to look after the wounded soldiers.

1st Southern General Hospital: To be Lieutenants: Charles Barnard Hawthorne, John Millard, Arthur Peregrine Thomson, and Richard William Acheson.

2nd Southern General Hospital: The undermentioned officers are seconded for service with a War Hospital: Major Charles A. Morton, Major Cyril H. Walker, Captain Henry G. Kyle, Captain Clifford A. Moore, Captain John Freeman, and Captain Herbert E. Harris.

3rd Western General Hospital: The undermentioned Majors to be temporary Lieutenant-Colonels: Philip R. Griffiths and William M. Stevens. Captain Cornelius A. Griffiths to be Major. The undermentioned Captains to be temporary Majors: Richard C. Elsworth, William J. Greer, Thomas M. Thomas, and Edgar Reid.

Sanitary Service: Lieutenant-Colonel David Smart, from 1st West Lancashire Field Ambulance, to be Sanitary Officer, West Lancashire Division. Major Charles E. Humphreys, from Attached to Units other than Medical Units, to be Sanitary Officer, Welsh Reserve Division. Captain Alexander C. Farquharson to be temporary Major.

Highland Casualty Clearing Station: Captain John Innes to be temporary Major.

West Lancashire Casualty Clearing Station: Ronald Kelburne Merson to be Lieutenant.

Welsh Casualty Clearing Station: Major Ashley Bird is seconded for duty with an Ambulance Train.

Attached to Units other than Medical Units.—Captain Frederick B. Jefferiss to be Major. Captain Frederick C. Nichols, from 2nd Southern General Hospital, to be Captain. Archibald Jubb (late Lieutenant 1st Lowland Field Ambulance) to be Lieutenant. Alan Colpitts Ainsley to be Lieutenant. Lieutenant John H. Robinson, from 2nd Welsh Field Ambulance, to be Lieutenant. Henry William Godfrey to be Lieutenant.

THE GLAMORGAN RED CROSS GAZETTE.

This little magazine is published three times a year, and the current issue, dated June, contains, in addition to local reports, several articles of general interest for Red Cross workers. Lieutenant Ivor J. Davies, R.A.M.C., writes on the Microbe in War, in which he pays a well-merited tribute to Sir Almroth Wright. The price of the magazine is 3*d.*, and it is published for the Glamorgan Red Cross Officers' Association by Mr. E. J. Llewellin, Cadoxton-Barry, Cardiff.

VITAL STATISTICS.

VITAL STATISTICS OF LONDON DURING JUNE, 1915.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality in the City of London and in each of the metropolitan boroughs. With regard to the notified cases of infectious diseases, it appears that the number of persons reported to be suffering from one or other of the 10 diseases specified in the table was equal to an annual rate of 6·7 per 1000 of the population, estimated at 4,516,612 persons; in the three preceding months the rates were 6·6, 6·3, and 6·4 per 1000 respectively. The lowest rates last month were recorded in Kensington, Hampstead, Stoke Newington, Bermondsey, Lambeth, and Lewisham; and the highest rates in Finsbury, Shoreditch, Bethnal Green, Stepney, and Battersea. The prevalence of scarlet fever showed a further increase last month; among the metropolitan boroughs this disease was proportionally most prevalent in the City of Westminster, Finsbury, Shoreditch, Bethnal Green, Stepney, and Woolwich. The Metropolitan Asylums Hospitals contained 2411 scarlet fever patients at the end of last month, against 2339 and 2221 at the end of the two preceding months; the weekly admissions averaged 326, against 272 and 283 in the two preceding months. Diphtheria was slightly more prevalent than it had been during May; this disease was proportionally most prevalent last month in Hampstead, the City of London, Stepney, Battersea, and Greenwich. The number of diphtheria patients under treatment in the Metropolitan Asylums Hospitals, which had been 1362, 1223, and 1083 at the end of the three preceding months, had further declined to 1019 at the end of last month; but the weekly admissions, which averaged 136 and 128 in the two preceding months, rose again to 133 last month. The prevalence of enteric fever showed a marked increase last month; the 68 cases notified during the month included 7 each in Kensington and Chelsea, 6 in Stepney, and 5 each in Battersea and Camberwell. The Metropolitan Asylums Hospitals contained 56 enteric fever patients at the end of last month, against 60 and 49 at the end of the two preceding months; the weekly admissions averaged 10, against 13 and 6 in the two preceding months. Erysipelas was proportionally most prevalent in Stoke Newington, Finsbury, Shoreditch, Bethnal Green, Stepney, Poplar, and Greenwich. The 23 cases of puerperal fever notified during the month included 5 in Fulham, 3 each in Islington and Southwark, and 2 each in Kensington, the City of Westminster, St. Pancras, and Woolwich. The 70 cases of cerebro-spinal meningitis included 9 in Lambeth, 7 in Hackney, 6 each in Stepney and Poplar, and 5 each in Bethnal Green and Camberwell. Of the 4 cases of poliomyelitis, 2 belonged to Lambeth and 1 each to Shoreditch and Poplar.

The mortality statistics in the table relate to the deaths of persons actually belonging to the several boroughs, the deaths occurring in institutions having been distributed among the boroughs in which the deceased persons had previously resided; the death-rates from all causes are further corrected for variations in the sex and age constitution of the populations of the several boroughs. During the five weeks ending July 3rd the deaths of 5281 London residents were registered, equal to an annual rate of 12·2 per 1000; in the three preceding months the rates were 21·2, 19·6, and 14·6 per 1000 respectively. The death-rates last month ranged from 8·3 in Wandsworth, 8·6 in Lewisham, 10·0 in Woolwich, 10·3 in Hackney, 10·5 in Camberwell, and 11·0 in Stoke Newington, to 14·2 in Poplar, 14·5 in Finsbury, 14·7 in Deptford and in Greenwich, 15·1 in Southwark, and 18·3 in Shoreditch. The 5281 deaths from all causes included 436 which were attributed to the principal infectious diseases; of these, 174 resulted from measles, 35 from scarlet fever, 45 from diphtheria, 98 from whooping-cough, 9 from enteric fever, and 75 from diarrhœa and enteritis among children under 2 years of age. No death from any of these diseases was recorded during June in the City of London; among the metropolitan boroughs they caused the lowest death-rates in the City of Westminster, Hampstead, Stoke Newington, Hackney, Wandsworth, and Camberwell; and the highest rates in Fulham, St. Marylebone, Finsbury, Shoreditch, and Deptford. The 174 deaths from measles just exceeded the corrected average number in the corresponding period of the five preceding years; this disease was proportionally most fatal last month in Paddington, St. Marylebone, Finsbury, Shoreditch, Bermondsey, Battersea, and Deptford. The 35 fatal cases of scarlet fever were 16 above the corrected average number, and included 6 in Stepney, 5 in Islington, and 3 each in St. Marylebone, Finsbury, Shoreditch, and Lambeth. The 45 deaths from diphtheria were 2 above the corrected average, and included 4 each in Islington, Poplar, and Wandsworth, and 3 each in Bethnal Green, Stepney, and Lambeth. The 98 deaths from whooping-cough were 6 in excess of the corrected average number; this disease was proportionally most fatal in Paddington, Fulham, St. Pancras, Shoreditch, Deptford, and Greenwich. The 9 deaths from enteric fever were equal to the corrected average number, and belonged respectively to Paddington, Kensington, St. Pancras, Shoreditch, Bethnal Green, Wandsworth, Camberwell, Greenwich, and Lewisham. The mortality from diarrhœa and enteritis among children under 2 years of age was proportionally greatest in Kensington, Shoreditch, Bethnal Green, Stepney, and Deptford. In conclusion, it may be stated that the aggregate mortality in London last month from the principal infectious diseases, excluding diarrhœa, was 7·4 per cent. above the average.

HEALTH OF ENGLISH TOWNS.

IN the 96 English and Welsh towns with populations exceeding 50,000 persons at the last Census, 7430 births and 3955 deaths were registered during the week ended Saturday, July 24th. The annual rate of mortality in these towns, which had declined from 13·9 to 11·4 per 1000 in the seven preceding weeks, was, in the week under notice, again 11·4 of their aggregate population, estimated at 18,136,180 persons at the middle of last year. During the 13 weeks of last quarter the mean annual death-rate in these towns averaged 15·1, against a corresponding rate of 15·2 per 1000 in London. The mean annual death-rate last week ranged from 4·4 in Wimbledon, 5·3 in Hornsey, 5·7 in Acton, 5·8 in Leyton, 6·0 in Enfield, and 6·2 in Bury, to 16·3 in Great Yarmouth, 16·5 in Middlesbrough, 16·6 in Halifax, 18·9 in Birkenhead, 19·3 in Barnsley, and 20·3 in West Bromwich.

The 3955 deaths from all causes were the same as the number in the previous week, and included 366 which were referred to the principal epidemic diseases, against 342 and 336 in the two preceding weeks. Of these 366 deaths, 144 resulted from infantile diarrhœal diseases, 98 from measles, 42 from whooping-cough, 43 from diphtheria, 30 from scarlet fever, and 9 from enteric fever, but not one from small-pox. The mean annual death-rate from these diseases was 1·0 per 1000, and coincided with that recorded in each of the three preceding weeks. The deaths of infants (under 2 years) attributed to diarrhœa and enteritis, which had been 67, 85, and 121 in the three preceding weeks, further rose to 144 last week, and included 25 in London, 14 in Liverpool, 11 in Birkenhead, 10 in Leeds, 7 in Manchester, 6 each in Birmingham and Hull, and 4 each in

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING JUNE, 1915.

(Specially compiled for THE LANCET.)

CITIES AND BOROUGHS.	Estimated population in the middle of 1914.	NOTIFIED CASES OF INFECTIOUS DISEASE.											DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.									Deaths from all causes.	Death-rate per 1000 living.†
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cerebro-spinal meningitis.	Poliomyelitis.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.*	Whooping-cough.	Enteric fever.	Diarrhœa and enteritis (under 2 years).	Total.	Annual rate per 1000 persons living.		
LONDON	**4,516,612**	—	**1683**	**723**	—	**68**	**1**	**23**	**312**	**70**	**4**	**2884**	**6·7**	—	**174**	**35**	**45**	**98**	**9**	**75**	**436**	**1·0**	**5281**	**12·2**
West Districts.																								
Paddington	142,055	—	40	19	—	1	—	—	12	1	—	73	5·4	—	9	—	1	5	1	3	19	1·4	188	13·7
Kensington	170,817	—	46	14	—	7	—	2	5	4	—	78	4·8	—	6	1	1	3	1	7	19	1·2	205	12·4
Hammersmith	124,750	—	40	23	—	—	—	—	9	—	—	72	6·0	—	4	—	1	3	—	1	9	0·8	149	12·4
Fulham	158,849	—	59	26	—	2	—	5	2	1	—	95	6·2	—	7	2	2	10	—	3	24	1·6	179	12·2
Chelsea	63,791	—	25	11	—	7	—	—	2	1	—	46	7·5	—	3	1	1	—	—	—	5	0·8	75	11·7
City of Westminster	152,346	—	77	18	—	—	—	2	6	—	—	103	7·1	—	2	—	2	1	—	—	5	0·3	162	11·7
North Districts.																								
St. Marylebone	112,892	—	45	12	—	2	—	—	7	1	—	67	6·2	—	10	3	—	3	—	3	19	1·8	138	13·0
Hampstead	86,731	—	12	20	—	—	—	—	7	—	—	39	4·7	—	1	—	2	—	—	—	3	0·4	91	11·5
St. Pancras	212,497	—	66	28	—	4	—	2	21	3	—	124	6·1	—	7	1	2	9	1	5	25	1·2	268	13·2
Islington	324,764	—	131	50	—	—	—	3	10	3	—	197	6·3	—	7	5	4	8	—	3	27	0·9	403	12·6
Stoke Newington	50,454	—	13	5	—	—	—	—	6	—	—	24	5·0	—	—	—	—	1	—	1	2	0·4	56	11·0
Hackney	223,724	—	85	25	—	3	—	—	16	7	—	136	6·3	—	5	1	1	3	—	1	11	0·5	219	10·3
Central Districts.																								
Holborn	45,861	—	18	7	—	—	—	—	3	—	—	28	6·4	—	1	—	1	—	—	1	3	0·7	53	12·0
Finsbury	83,212	—	60	10	—	1	—	—	9	2	—	82	10·3	—	11	3	2	2	—	2	20	2·5	117	14·5
City of London	17,129	—	5	5	—	—	—	—	3	—	—	13	7·9	—	—	—	—	—	—	—	—	—	18	11·5
East Districts.																								
Shoreditch	108,869	—	61	14	—	1	1	1	19	2	1	100	9·6	—	20	3	—	4	1	3	31	3·0	185	18·3
Bethnal Green	127,662	—	60	29	—	3	—	—	22	5	—	119	9·7	—	4	—	3	3	1	5	16	1·3	155	13·2
Stepney	273,265	—	155	80	—	6	—	1	30	6	—	278	10·6	—	10	6	3	4	—	10	33	1·3	345	13·8
Poplar	160,222	—	43	26	—	4	—	—	19	6	1	99	6·4	—	9	1	4	4	—	3	21	1·4	219	14·2
South Districts.																								
Southwark	186,941	—	48	35	—	2	—	3	16	1	—	105	5·9	—	4	1	1	3	—	3	12	0·7	268	15·1
Bermondsey	124,213	—	38	10	—	1	—	—	6	1	—	56	4·7	—	9	1	1	3	—	2	16	1·3	149	12·5
Lambeth	296,724	—	72	39	—	3	—	—	16	9	2	141	5·0	—	5	3	3	3	—	5	19	0·7	362	12·5
Battersea	167,338	—	75	62	—	5	—	—	6	4	—	152	9·5	—	10	1	1	3	—	2	17	1·1	185	11·6
Wandsworth	338,998	—	178	44	—	2	—	—	11	4	—	199	6·1	—	5	1	4	3	1	3	17	0·5	271	8·3
Camberwell	262,020	—	98	40	—	5	—	1	11	5	—	160	6·4	—	3	—	2	3	1	2	11	0·4	267	10·5
Deptford	109,182	—	31	12	—	4	—	—	9	1	—	57	5·4	—	11	—	—	7	—	4	22	2·1	156	14·7
Greenwich	96,037	—	30	25	—	3	—	1	12	—	—	71	7·7	—	4	1	2	4	1	—	12	1·3	137	14·7
Lewisham	172,433	—	42	13	—	—	—	—	10	2	—	67	4·1	—	3	—	1	5	1	—	10	0·6	145	8·6
Woolwich	122,836	—	69	21	—	2	—	2	7	1	—	102	8·7	—	4	—	—	1	—	3	8	0·7	116	10·0
Port of London	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—

* Including membranous croup. † The death-rates are corrected for variations in sex and age constitution of the populations of the several boroughs, the population of England and Wales being taken as the standard.

West Ham, Stoke-on-Trent, and Leicester. The deaths referred to measles, which had steadily declined from 239 to 99 in the seven preceding weeks, were 98 last week, and caused the highest annual death-rates of 1·6 in Rotherham and in Rhondda, 2·1 in Halifax, 2·9 in Barnsley and in Middlesbrough, 3·1 in York, and 3·8 in West Bromwich. The fatal cases of whooping-cough, which had declined from 57 to 45 in the three preceding weeks, further fell to 42 last week, of which number 20 occurred in London and 2 each in Leeds and in Middlesbrough. The deaths from diphtheria, which had been 39, 47, and 28 in the three preceding weeks, rose to 43 last week; 11 deaths were recorded in London, 4 in Sheffield, and 3 each in Portsmouth and in Birmingham. The deaths attributed to scarlet fever, which had been 18, 32, and 27 in the three preceding weeks, were 30 last week, and included 9 in London, 4 in Birmingham, 4 in Manchester, and 2 in Sheffield. The fatal cases of enteric fever, which had been 15, 12, and 15 in the three preceding weeks, fell to 9 in the week under notice, and included 5 in London.

The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 2446, 2471, and 2468 in the three preceding weeks, rose again to 2483 on Saturday last; 342 new cases were admitted during the week, against 348, 322, and 290 in the three preceding weeks. These hospitals also contained on Saturday last 1078 cases of diphtheria, 54 of enteric fever, 48 of measles, 8 of whooping-cough, but not one of small-pox. The 967 deaths from all causes in London were 11 more than in the previous week, and corresponded to an annual death-rate of 11·2 per 1000. The deaths referred to diseases of the respiratory system, which had been 145, 134, and 167 in the three preceding weeks, fell to 126 in the week under notice, and were 9 above the number registered in the corresponding week of last year.

Of the 3955 deaths from all causes in the 96 towns, 194 resulted from different forms of violence, and 352 were the subject of coroners' inquests, while 1172 occurred in public institutions. The causes of 31, or 0·8 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest. All the causes of death were duly certified in West Ham, Bristol, Nottingham, Bradford, Leeds, Sheffield, Hull, and in 70 smaller towns. Of the 31 uncertified causes of death, 4 were registered in Gillingham, 3 each in Birmingham and in Preston, and 2 each in London, Liverpool, Manchester, Newcastle-on-Tyne, and Carlisle.

HEALTH OF SCOTCH TOWNS.

In the 16 largest Scotch towns, with an aggregate population estimated at 2,345,500 persons at the middle of this year, 1083 births and 942 deaths were registered during the week ended Saturday, July 24th. The annual rate of mortality in these towns, which had been 16·6, 15·7, and 12·5 per 1000 in the three preceding weeks, rose again to 14·2 per 1000 in the week under notice. During the 13 weeks of last quarter the mean annual death-rate in these towns was 18·1, against a corresponding rate of 15·1 per 1000 in the large English towns. Among the several towns the death-rate last week ranged from 5·4 in Hamilton, 6·1 in Falkirk, and 8·2 in Clydebank, to 19·3 in Aberdeen, 19·4 in Leith, and 24·8 in Ayr.

The deaths from all causes were 136 fewer than in the previous week, and included 98 which were referred to the principal epidemic diseases, against 126 and 88 in the two preceding weeks. Of these 98 deaths, 40 resulted from measles, 21 from infantile diarrhœal diseases, 14 from scarlet fever, 13 from whooping-cough, 8 from diphtheria, and 2 from enteric fever, but not one from small-pox. The mean annual death-rate from these diseases was equal to 2·2, against 1·0 per 1000 in the large English towns. The deaths attributed to measles, which had been 70 and 44 in the two preceding weeks, further fell to 40 last week, and included 29 in Glasgow, 4 in Aberdeen, 3 in Paisley, and 2 in Leith. The deaths of infants (under 2 years) referred to diarrhœa and enteritis, which had been 14 and 16 in the two preceding weeks, rose again last week to 21, of which 10 occurred in Glasgow, 4 in Dundee, and 2 in Motherwell. The fatal cases of scarlet fever, which had been 7 and 9 in the two preceding weeks, further rose to 14 last week, and included 7 in Aberdeen, 4 in Glasgow, and 2 in Edinburgh. The deaths from whooping-cough, which had been 26 and 11 in the two preceding weeks, rose again to 13 last week, and included 9 in Glasgow and 2 in Aberdeen. The 8 fatal cases of diphtheria included 5 in Edinburgh and 2 in Glasgow. The 2 deaths from enteric fever were both registered in Glasgow.

The deaths referred to diseases of the respiratory system, which had been 99, 76, and 60 in the three preceding weeks, rose again to 72 last week, and were 2 above the number registered in the corresponding week of last year. The deaths from the several forms of violence numbered 13, against 27 in each of the two preceding weeks.

HEALTH OF IRISH TOWNS.

In the 27 town districts of Ireland, with an aggregate population estimated at 1,212,380 persons at the middle of this year, 550 births and 341 deaths were registered during the week ended Saturday, July 24th. The annual rate of mortality in these towns, which had been 16·6, 13·3, and 12·6 in the three preceding weeks, rose again to 14·7 per 1000 in the week under notice. During the 13 weeks of last quarter the mean annual death-rate in these towns was 18·4, against corresponding rates of 15·1 and 18·1 per 1000 respectively in the English and Scotch towns. The annual death-rate last week was equal to 14·3 in Dublin (against 11·2 in London and 15·2 in Glasgow), 14·4 in Belfast, 15·6 in Cork, 25·3 in Londonderry, 23·0 in Limerick, and 7·6 in Waterford, while in the 21 smaller towns the mean death-rate was 13·0 per 1000.

The 341 deaths from all causes were 48 more than the number in the previous week, and included 24 which were referred to the principal epidemic diseases, against 25 and 27 in the two preceding weeks. Of these deaths, 9 resulted from whooping-cough, 7 from infantile diarrhœal diseases, 5 from diphtheria, 2 from measles, and 1 from scarlet fever. The mean annual death-rate from these diseases was equal to 1·1, against corresponding rates of 1·0 and 2·2 per 1000 in the English and Scotch towns respectively. The deaths attributed to whooping-cough, which had been 3 and 7 in the two preceding weeks, rose again to 9 last week, and included 6 in Londonderry. The 7 deaths from infantile diarrhœal diseases included 3 in Dublin and 4 in Belfast. The fatal cases of diphtheria, which had been 3 and 1 in the two preceding weeks, rose again last week to 5, of which 3 occurred in Dublin. The 2 deaths from measles belonged to Belfast and Lisburn respectively, and the deaths from scarlet fever to Belfast.

The deaths referred to diseases of the respiratory system, which had been 64, 56, and 31 in the three preceding weeks, rose to 36 in the week under notice. Of the 341 deaths from all causes, 115, or 34 per cent., occurred in public institutions, and 24 resulted from different forms of violence. The causes of 20, or 5·9 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; in the 96 large English towns the proportion of uncertified deaths did not exceed 0·8 per cent.

OXFORD OPHTHALMOLOGICAL CONGRESS.—The annual meeting of the Oxford Ophthalmological Congress was held on July 15th and 16th in the Department of Human Anatomy of the University of Oxford by the kind permission of Professor Arthur Thomson. Notwithstanding the inevitable absence of some of the regular attendants owing to military duties and other reasons connected with the war, a good number were present during the proceedings, which were opened at 9 A.M. on Thursday, July 15th, by a hearty welcome from the Master, Mr. Sydney Stephenson. The morning of the first day was devoted to addresses by Sir StClair Thomson, Sir J. Mackenzie Davidson, Lieutenant-Colonel R. H. Elliot, I.M.S., Dr. W. H. H. Jessop, Dr. T. Harrison Butler, and Mr. M. Stephen Mayou. The subjects chosen were of considerable interest and each address was followed by discussion. Lieutenant-Colonel Elliot prefaced his remarks with words of congratulatory welcome to Mr. Stephenson on his first appearance as Master of the Congress in place of Mr. Robert W. Doyne, now the Past Master. The afternoon was spent at the Oxford Eye Hospital, where interesting cases were shown by Mr. P. E. H. Adams, Dr. William Robinson, Mr. N. C. Ridley, Mr. E. H. Edwards Stack, and Mr. B. Cridland. Mr. Ridley, Mr. Stack, and Dr. E. E. Maddox also gave demonstrations. The second day was occupied by a discussion opened by Dr. Frank Shufflebotham on Industrial Diseases and Accidents. The subjects dealt with comprised coal-miners' nystagmus, eye injuries caused by occupation with their prevention and first-aid treatment, industrial cataract, plumbism as it affects the eye, siderosis, and the rarer industrial diseases and injuries of the eye, and were introduced by Dr. Percival J. Hay, Dr. Edgar L. Collis, Dr. Robinson, Mr. S. McMurray, Dr. J. Gray Clegg, and Mr. Stephenson respectively. During the two days demonstrations were given by many members of the Congress, when pathological specimens, apparatus, and instruments of much interest were shown. An exhibition of ophthalmological instruments and apparatus was open daily. The official dinner of the Congress took place on the evening of Thursday, July 15th, in the hall of Keble College, and was well attended. The presidential chair was occupied by Mr. Doyne, and amongst those present were Surgeon-General Sir Frederick Bradshaw, K.C.B., the Rector of Exeter College, and the Bursar of Keble College.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Highlands and Islands Medical Service Board.

THE first report of this board, being for the period ended Dec. 31st, 1914, has just been presented to Parliament. The board was constituted in August, 1913, as follows:—Sir John A. Dewar, Bart., M.P., chairman; The Lady Susan Gilmour; Sir Donald MacAlister, K.C.B., Principal and Vice-Chancellor of Glasgow University, and President of the General Medical Council; Dr. W. Leslie Mackenzie, medical member of the Local Government Board for Scotland; Dr. John Macpherson, Senior Medical Commissioner in Lunacy for Scotland; Dr. John C. M'Vail, deputy chairman of the Scottish Insurance Commission; Dr. J. L. Robertson, senior chief inspector of schools in Scotland; Dr. Norman Walker, Direct Representative for Scotland on the General Medical Council. The Act applies to the counties of Argyll, Caithness, Inverness (excluding the Burgh of Inverness), Ross and Cromarty, Sutherland, Orkney, and Zetland; the Highland District of the county of Perth as presently constituted in terms of the Local Government (Scotland) Act, 1889.

The report is a record of strenuous work in difficult circumstances. The first act of the board was to circularise all local bodies interested and the medical practitioners in the Highlands and Islands pointing out that the statutory bodies concerned must recognise that the Highlands and Islands (Medical Service) Grant Act, 1913, was not intended to relieve them of existing obligations in regard to medical service. In the same letter the board laid down a policy by which the medical practitioner would be assisted in the practical difficulty of attending patients in the district, while provision for specialised medical service, nursing, and hospital accommodation were also promised. Visitations have been made and inquiries instituted, and members of the board have been able to see personally the great majority of the medical men practising in the Highlands and Islands. The mileage grant was distributed by the various Insurance Committees, through the board, among the medical men in accordance with a scheme approved by the Treasury; and the consent of the Treasury has also been obtained for a special emergency scheme, under which expenditure up to £2000 is permissible in localities where the inhabitants are clearly unable to bear the cost of an efficient medical service.

Medical service in the Highlands and Islands has been gravely affected by the war. Many of the practitioners in the board's area held commissions in the Territorial army and were called out when war was declared, while others have volunteered in answer to the appeal of the War Office for more doctors. In regions where medical men are so sparsely distributed as they are in many parts of the Highlands, the inconveniences caused by any shortage are felt very acutely, and the board has, by financial and other means, done its best to assist in procuring substitutes for those who are serving their country. It is almost impossible to find suitable candidates to fill such definite vacancies as occur in the natural course of events. Localities far more populous than most of those in the board's area are finding the same difficulties, and the medical men who, for one or other reason, are unable to offer their services to the War Office, naturally prefer to accept these more easily worked practices. In coöperation with the Scottish Medical Service Emergency Committee, the board hope to be able to arrange an intermittent medical service in those areas where it has not been possible to provide a regularly resident doctor.

Edinburgh Sanatorium Benefit Committee.

In his report on the work of the sanatorium benefit committee of the Edinburgh Insurance Committee Dr. John gives figures regarding 309 patients, and shows the paucity of the numbers who apply in the early or more curable stages, the great majority of the patients having passed into the second and third stages of the disease before making an application for sanatorium benefit. In several cases the patients were in the third stage, and within a few months of the date of their death before they even consulted a doctor. He fears this is a condition of things which is likely to persist for some time until the public generally begin to realise that time is all-important in the successful treatment of this disease, and that the sooner it is detected and treatment begun the greater the chance there is of cure. The housing question, he says, is one of the vital points in dealing with the problem of tuberculosis. Hitherto we have heard a great deal about sanatoriums, and unfortunately too little about the peoples' houses. The disease should be attacked there, and his opinion inclines to the belief that if all the money which at present is being poured out on sanatoriums had been spent on an improvement of housing conditions the results would certainly not have been less satisfactory. Improvement in the housing conditions is always followed by a reduction in the phthisis death-rate. While the problem of dealing with housing reforms falls mainly on the public health committee, yet it seems to him that the sanatorium committee might direct the attention of that body to the serious overcrowding which is shown to exist in the homes from which the patients had come. He suggests, also, that as improper and insufficient feeding played an important part in the causation of the disease, a cook should be engaged who would go into the houses of the people and instruct them regarding cheap yet nutritious and wholesome dishes. Discussing the death-rate, he notes that if the fall continues in the future at the same rate as in the past, in the course of the next 40 years the disease will have disappeared.

University of Edinburgh.

There will be no post-graduate course this year on account of the war, and for the same reason scholarships are under suspension. No fellowship, scholarship, or bursary which is awarded at intervals of two or more years, other than those which are open to entrants and which would ordinarily be awarded in the academic year 1915–16, or October, 1916, will be awarded within that period. In all cases of suspension candidates who would have been eligible in the academic year 1915–16, or in October, 1916, will be eligible at the new competition.

Vacation Course of Clinical Medicine at the Edinburgh Royal Infirmary.

In the interests of students who have done war service, or who intend to do so, it is proposed to hold a special course of clinical medicine in the

Edinburgh Royal Infirmary during the summer. Any such student desiring to attend the course should apply for sanction without delay, either to the Dean of the Medical Faculty of the University or (if preparing for the triple qualification) to the Dean of the School of Medicine of the Royal Colleges. The first meeting of the class was held in the West Medical Theatre, Royal Infirmary, on Monday last.

July 27th.

ITALY AT WAR: SOME SINISTER ASPECTS OF THE DOMESTIC SITUATION.

(FROM AN ITALIAN CORRESPONDENT.)

"WAR is Hell," said the great American soldier, General Sherman, in the internecine conflict which, from 1861 to 1865, cost the United States such an appalling sacrifice of life and treasure. Nor in the day now passing is the saying less applicable to the international strife still raging from the Channel to the Black Sea. Here in Italy we have read, with melancholy interest, the revelations, mainly north of the Tweed, of the outburst of drunkenness among the wives of the citizen soldiers engaged at the front; the funds granted to the women in question having supplied the means of consoling their temporary "widowhood" by that most fatal of all "comforters"—alcohol. But scarcely have we done commenting on the British backsliding when we have become aware of a parallel development at home; not, indeed, as Dr. Marchiafava has shown, on the side of inebriety, but on that of sexual delinquency. Bacchus may be the "evil genius" of the Northern races, but Venus is that of the Southern, and just as the war still raging has supplied the former with *his* "opportunity" in the British Isles, so it has furnished the latter with *hers* in the Italian kingdom.

Some 10 or 12 years ago I drew attention in THE LANCET to the suppression, by the salutary enactment of the then Minister Signor Luigi Luzzatti, of the pornographic prints which were on view at the kiosks and in the stationer's windows in all the great Italian towns—prints on which children of tender years might have been seen poring intently—to the corruption of the said children by lascivious suggestion, prompting them to the practices all too common in populous centres, culminating in that "premature indulgence in the marital privilege" (to use King-Chambers's happy phrase). Hailed with welcome by all that was best in Italian society, the "Luzzatti law" justified its enactment by the cleansing of public and private life so disastrously befouled by the erotic "literature" and "art" so widely diffused; indeed, the physical and moral rehabilitation of juvenile Italy was beginning to be reassuringly in evidence, when, with the outbreak of the Italo-Austrian war, the said "literature" and "art" reappears afresh, in another less flagrant, but not the less deadly, form as associated with the patriotic movement which has sent the Italian youth and manhood to the front. The press, daily and weekly, particularly in the Southern—that is, the Neapolitan and Sicilian provinces—now teems with "illustrations" of Italian girlhood, love-sick with their young soldier-compatriots, donning the feathered hat of the Bersagliere or the sacro-sanct insignia of the Croce Rossa, and, in semi-nude pose, displaying bust, limb, or body with a fullness and a freedom which can have but one purpose—that of arousing in the young spectator emotions or sentiments of which modesty is the least constituent. Under the guise of patriotic motives this "literature" and "art" has already reached a development which is a veritable "public scandal," insomuch that in the more authoritative journals, from the Government organ—the *Giornale d'Italia*—downwards, protests, over the signature of reputable publicists, military as well as civilian, are appearing in the name of decency first and in that of hygiene next—hygiene physical as well as moral.

Under the rubric of "Stampa Oscena," one of the most public-spirited and influential of Italian writers, Godofredo Bellonci, has been appealing through the leading Roman journal to the Government to intervene, promptly and effectively, for the suppression of the "illustrated" letterpress alluded to, and in to-day's issue (July 21st) he returns with enhanced impressiveness to the theme, showing, by citation and reference, that the purveyors of these "irritamenta malorum" are more active than ever, encouraged by the "popularity"—that is, by the gains—of their infamous *métier*. The wives of the absent linesman or dragoon are represented as soliciting, with every erotic device of pose, the "solace" of the citizen not yet serving in the combatant line! Another "illustration" portrays the lady of the house and her maid-in-waiting, scantily clothed (to put it mildly), comparing notes as to their "solitude" and talking of the "man in reserve" (*l'uomo di riserva*) with an all too transparent military equivoque. Excluded from the trenches or the camp, this "literature," exclaims Signor Bellonci, should be swept away from the public streets and stamped out in the purlieus whence it emanates. Well may he ask, Have we come back to the pagan epoch when Horace (Ode III. 6) had to deplore the emasculating excesses which wrought the "decline" and finally the "fall" of the Roman Empire? Or must we repeat with him—

> Hoc fonte derivata clades
> In patriam populumque fluxit?

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—The seventy-fourth annual meeting of the association was held on July 22nd at the rooms of the Medical Society of London, under the presidency of Dr. David G. Thomson, of Norwich. The annual meeting is usually held in London or in one of the large provincial centres, and two days are devoted to the business of the association and to the reading and discussion of scientific papers. In this abnormal year, however, it was decided that the annual meeting should be of a purely business character, and it was bereft of the festivities which are its usual accompaniments. Following the lead of other societies, no change was made in the personnel of the officers, council, or special committees. The annual report of the council shows that the membership is 731, and in it sympathetic reference was made to the passing away of Sir Thomas S. Clouston, after a membership of 53 years. Satisfaction was expressed at the knighthood conferred on Sir Frederick Needham, a former president and an honorary member. The President was heartily thanked for the manner in which he entertained members and conducted the meeting at Norwich last year. Reference was also made in the report to the fact that many members of the association had joined the forces of the Crown for the duration of the war, and to the valuable work done by members in arranging for the reception of wounded soldiers in various asylums. Prizes for papers read at divisional meetings were awarded to Dr. Dunlop Robertson and Dr. Maxwell Ross.

Correspondence.

"Audi alteram partem."

HOSPITAL TREATMENT *V.* LUNACY TREATMENT.

To the Editor of THE LANCET.

SIR,—Such letters as that of Dr. S. E. White in your last week's issue appear periodically in the lay and medical press, and have done as long as I remember. The study and treatment of mental disease has long been said to be inadequate, and that the fault has been that specialists and not general physicians have been responsible, and that the insane, or rather those suffering from incipient mental disorder, should be treated in hospitals. This was tried at Guy's, and Gull, no mean physician, was at one time in charge; yet it was not a success. I admit that there is a prejudice against the word "asylum," and now the newest institutions are called mental hospitals; but this does not render it certain that the medical men connected with these institutions do not see mental disorder in its incipient stages. Those connected with mental hospitals have consulting experience beyond the walls of the institutions. I wonder if Dr. White would consider that the late Sir Thomas Clouston was tied by asylum experience. I know he wished to have an insane ward attached to the general hospital, but only those who have practical experience of mental disorders know the dangers and difficulties in treating many cases, even in their earlier stages, apart from fully organised buildings.

That progress in the treatment of these disorders has been slow is only saying that our knowledge of mental functions is and ever will be imperfect. Surely in recent years the neurologist has been responsible for the early treatment of mental disorders, yet I have to learn that in consequence any advance has been made. Routine rest cures and travelling have been more in fashion, but I do not think the results have been any better than that advised by alienists. The very best work, as far as investigation and treatment, is being carried out in places like Claybury and Cardiff, and I fail to find that inspiration comes or will come from without.

I may seem to write strongly, but 50 years of experience has led me to believe that steady progress, which will always be slow, will be in the end better than simple theoretic treatment.

I am, Sir, yours faithfully,

Devonshire-place, W., July 26th, 1915. GEO. H. SAVAGE.

To the Editor of THE LANCET.

SIR,—With reference to the extraordinary observations and statements contained in the penultimate paragraph of Dr. S. E. White's letter, with the above title, appearing in your issue of last week, may I be permitted to ask Dr. White the following questions?

Do I correctly understand Dr. White to affirm that only so-called "nervous" cases (cases of "nerve-shock" or "nerve-strain") amongst returning sick soldiers are being sent to the mental hospitals (asylums) which were taken over by the War Office on the recommendation of the Board of Control, and which are at present known as war hospitals? If not, Does he suggest that the sick and wounded now being received into these hospitals differ in any way, as regards nature of malady or disability, from sick and wounded sent into hospitals in general?

When it is stated that soldiers in the war hospitals are in charge of the pre-existing asylum medical officers, is it thereby implied that no other medical or surgical staff, or staff of specialists, is provided?

By the phrase "cases which in civilian life would be uncertifiable should not, when in the army, be treated as lunatics" does Dr. White, in fact, mean that the soldier patients in war hospitals are so treated?

Does Dr. White really believe, and intend to convey to your readers, that these war hospitals are "asylums in everything but name," and that the "conditions" obtaining in them are "in essentials nothing else than those of lunacy"?

Do the remarks refer to all these war hospitals, and, if not, will Dr. White specify those referred to? In my opinion Dr. White has assumed a grave responsibility; and it would appear desirable, and only fair, that the meaning should be made perfectly clear, so that those concerned—the departments of State—which arranged for the present use of mental hospitals, the visiting committees which gave their consent, the medical officers of the institutions, and the relatives of those being treated in them (who will, of course, be greatly distressed should Dr. White's remarks be cited by the daily press) may know exactly what the charges are which Dr. White makes.

I am, Sir, yours faithfully,

EDWIN GOODALL.

The Welsh Metropolitan War Hospital, near Cardiff, July 26th, 1915.

To the Editor of THE LANCET.

SIR,—Under the above heading Dr. S. E. White writes in THE LANCET of July 24th to urge that beds for mental cases should be provided in general hospitals. There is nothing new in this: it has long been advocated by the members of our specialty. The letter, though written in a good cause, is full of statements which, to say the least, are inaccurate. The first to which I would draw attention is this: "Nothing will as a rule induce early cases to go voluntarily for residential treatment to any institution connected with lunacy. They have a not unnatural dread lest, having once entered, they may not get out again." During the year 1913, 426 patients were admitted as voluntary boarders into private asylums and registered hospitals. Patients often ask to be admitted into county and borough asylums. Two such applied to me recently, and the numbers of these would in all probability be larger if the law permitted voluntary boarders in these institutions.

A second statement is as follows: "The mental nurse is ignorant, well-meaning, but quite incompetent." Those who have been associated with these self-denying and capable men and women know the excellence of their work, and it is difficult to reply in temperate language. Perhaps the kindest thing to say is that it is possible that Dr. White has had only a limited experience in this class of work.

I am, Sir, yours faithfully,

R. H. STEEN.

City of London Mental Hospital, near Dartford, Kent, July 26th, 1915.

THE DENTAL NEEDS OF THE ARMY.

To the Editor of THE LANCET.

SIR,—Your note on this subject in THE LANCET of July 3rd (p. 43) seems to me to ignore the value of practical experience. Only by years of practice can a dentist with confidence decide as to the treatment or removal of diseased teeth; therefore the objection to the present system is that a medical man (whose knowledge is, and always must be, almost entirely theoretical as regards dental matters, just as a dentist's knowledge of other departments of medicine and surgery must necessarily, from want of practice, remain theoretical) expects the dentist to follow his directions, however absurd. The medical man, especially the university graduate, as a rule does not give the dentist sufficient credit for his general knowledge of medicine and surgery; the physician and surgeon often knows better, as he has passed the same preliminary examination, has sat in the same classes with him in anatomy, physiology, chemistry, materia medica, medicine, surgery, and clinical surgery; has probably had him as his partner in practical anatomy, chemistry, or general hospital work, &c.; has seen him carry off a large share, out of all proportion to his numbers, in Edinburgh at least, of the class medals, besides studying his own special subjects. He usually respects the dentist, but the university graduate often affects to treat him as though he had only attended some first-aid classes, and is generally ignorant of what dental training means.

To my mind, it would be a mistake to set up a different department, but it must come to that if the present state of affairs continues. The medical man must loosen the reins, and give more freedom of action to the dentist; he must also bear in mind that dentistry has made immense strides of late years; that in most cases, apart from considerations of cost, there is little need of extractions or artificial teeth. As a rule, the most putrid and suppurating mouthful of teeth can be treated in such a manner as to excite the admiration and envy of those medical men who have paid attention to the advance made. Yet we have school and army men and school women ordering the extraction of teeth which the conscientious dentist feels he would deserve severe punishment for doing, as to follow out these orders is to wreck the mouth. Let the medical man examine the mouth, and if he sees anything suspicious, turn the patient over to the dentist to use his own judgment, and everything will work in harmony.

The present state of affairs, in the army, is a disgrace to any civilised country. Recruits are being sent to dental hospitals and to a few favoured dentists; in Edinburgh they amount to about half a dozen. Orders are given to extract one day and have sets within a few days on the raw gums, and these dentists are overwhelmed with work which they cannot possibly perform, while at least 50, ready to serve, are entirely ignored; and the Surgeon-General says: "It has not been necessary to make use of the numerous offers of service which have been received from dental practitioners."

No amount of theory will make a medical man, as regards dental knowledge, equal to a dentist, who has both theory and practice. Even in ordinary practice patients are often kept suffering through the ignorant treatment by medical men of neuralgia in the head and neck, arms and breast, where the dentist locates the cause with very little trouble; abscesses from the teeth are opened to the neck and face, and running sores established by reckless lancing; and indigestion, general ill-health, and, I believe, consumption, encouraged by prolonged treatment by drugs, when the main cause is the drain on the system, by the production of pus and the swallowing of it, often at the rate, I am sure, of an ounce or more per day, quite apart from the want of proper mastication, and all because the medical men so often treat the dentist as an opponent instead of as an ally. The sooner the medical man who has not practised dentistry recognises his absolute ignorance of the subject the better it will be for the community at large and his own reputation. Leaving out those connected with hospitals, in the matter of local anæsthesia, the tactful treatment of nervous patients and children and long-suffering patience the medical man is simply not in it compared with the dentist; while the latter's intimate knowledge of mechanics and chemical processes stands him in good stead in many an emergency.

Let more attention be paid to the condition of the entrance hall, that the food and air passing through may not be mashed up into a bolus of festering rottenness; and let the man who has made a specialty of this department of medicine and surgery have free scope for his, in this matter, superior judgment.

I am, Sir, yours faithfully.

A. SHERWOOD ANDERSON, L.D.S. R.C.S. Edin.

Edinburgh, July 20th, 1915.

AN AID TO RECRUITING.

To the Editor of THE LANCET.

SIR,—The male attendants of military age employed in asylums have as a class not been backward in their duty to their country. Many of them enlisted at the beginning of the war, being encouraged to do so by the loyal attitude of asylum boards and committees as regards pay, &c., and the vacancies created by these absentees have since been largely filled by men who are ineligible for military service. There are still, however, at the present time very many able-bodied young men employed as attendants on the insane. The presence of some of these is necessary, but the number required can be considerably reduced by the substitution of female nurses, especially in place of those attendants engaged in nursing the sick in the male hospitals and male infirm wards of asylums.

Fifteen years have now elapsed since the experiment of employing women on a large scale to nurse male patients in an asylum was tried in Scotland. All that was then said as to the advantages of female nursing for insane men under certain limitations has since been proved true by many observers and the fears of the early opponents of this system have been found to be negligible, for the dangers that they prophesied have by forethought and care been avoided. The system is now, from the practical experience they have gained of its benefits, very strongly advocated by the Scottish Board of Control and their judgment can be accepted without reserve. It has been all but universally adopted by the Scottish asylums. As there is every indication that all eligible males who can be spared will soon be wanted for our military forces, I take this opportunity of directing the attention of the medical superintendents and the members of boards and committees of asylums in England to this system, as it has up to now

scarcely been introduced into English asylums Not only will they be doing a patriotic duty by introducing these female nurses to enable more of their male attendants to enlist, but they can be assured that they will at the same time be adding to the comfort and well-being of the sick and infirm male patients under their charge.

I am, Sir, yours faithfully,

GEORGE M. ROBERTSON, M.D.,
Physician-Superintendent.

The Royal Asylum, Morningside, Edinburgh, July 21st, 1915.

THE TREATMENT OF INJURY OF THE MEMBRANA TYMPANI DUE TO BURSTING SHELLS.

To the Editor of THE LANCET.

SIR,—One of the lesser features of the war is the large number of cases of injury to the membrana tympani due to the bursting of high-explosive shells. A mere slit or hole may be produced, but in many cases there is absolute destruction of a large part or whole of the membrana tensa. The treatment of these cases is very simple. The deep meatus and membrane should be left absolutely alone, no drops or syringing being used. The cartilaginous meatus should be painted with iodine, care being taken that none reaches the deep meatus, and then carefully and lightly plugged with sterile gauze or wool, which can be changed as often as is necessary. As a rule, healing will take place in about two months' time without pain or purulent discharge, and with nearly perfect hearing if the labyrinth has not also been injured. If infection does take place and a purulent discharge result, the ear should be gently syringed with warm sterile boric lotion or normal saline solution two or three times a day, wool being worn in the intervals. These cases strongly resent the application of peroxide of hydrogen or any strong antiseptic solution.

I am, Sir, yours faithfully,

Savile-row, W., July 26th, 1915. ARTHUR H. CHEATLE.

THE NOTIFICATION OF BIRTHS EXTENSION BILL.

To the Editor of THE LANCET.

SIR,—One point in Dr. R. R. Rentoul's letter on the above Bill in THE LANCET of July 24th should, I think, be strenuously urged upon the legislature by the profession—viz., the gross unfairness of compelling a medical man without fee to notify within 48 hours each birth at which he attends. I have repeatedly felt the injustice of this compulsion. As yet I have failed to find any other part of the community required to give information sufficiently important to need a compulsory Act without any fee or payment attaching.

I am, Sir, yours faithfully,

Dalston, July 26th, 1915. F. E. COCKELL.

EVOLUTIONARY ETIOLOGICAL FACTORS IN DISEASE.

To the Editor of THE LANCET.

SIR,—The contribution by Dr. R. Donaldson in THE LANCET of June 26th on the Etiological Factor in So-called Cerebro-spinal Fever is of particular interest, perhaps more especially to those who for years past have attacked the doctrine of absolute specificity in the matter of infectious diseases. That specificity is merely relative, not absolute, is a thesis which has been strongly supported by many authorities and which I have tried to elaborate elsewhere.[1] Some diseases, such as variola and morbilli, are more definitely specific than others; yet in my little book arguments are adduced that these two diseases may be more closely related than is generally imagined, possibly evolving from a common ancestral organism. Dr. Donaldson's bacteriological observations support an idea which I have entertained for some months on clinical and epidemiological grounds that so-called cerebro-spinal fever is more or less related to diphtheritic and scarlatinal infection, evolving by way of some anomalous form of sore-throat.

Last autumn and winter there was widely prevalent in Norfolk (and probably in other counties) a peculiar form of infectious disease characterised generally by a moderate sore-throat, and occasionally by a slight and evanescent rash (said to be scarlatiniform in character); in a few cases the tongue was beefy or showed enlarged fungiform papillæ. Fever was moderate, rarely exceeding 101° F.; pulse rarely over 110, even in children; the body was *not* hot to the touch. Vomiting was rare, as also was any sign of desquamation. Swabbings of throats gave variable results, the most frequent organism present being a non-Gram-staining diplococcus, which Professor R. T. Hewlett reported might be Micrococcus catarrhalis. Hofmann's bacillus was also frequently noted. Later, when cases of so-called cerebro-spinal fever began to crop up, I could not help associating its appearance in my mind with the widely spread epidemic of sore-throats which preceded it, particularly when it became clear by extensive bacteriological examination of swabbings from contacts of cerebro-spinal fever cases that for every clinical case of so-called cerebro-spinal fever there were several carriers of the so-called "meningococcus," who appeared to be quite well or merely to have a little catarrh.

I have elsewhere recorded the opinion that on clinical, epidemiological, and bacteriological grounds there is a subtle relationship between scarlet fever and diphtheria, and Hofmann and other anomalous forms of sore-throat. Hort and others have questioned the specificity of the meningococcus, and now Dr. Donaldson suggests that the causal organism of the epidemic of cerebro-spinal fever recently noted in Reading is a diphtheroid rod closely related to Klebs-Löffler's bacillus; this diphtheroid rod (like the diphtheria bacillus) being extremely pleomorphous, giving rise to Hofmann-like forms, to what appear to be meningococci, &c. Some years ago I contributed a note (THE LANCET, Sept. 21st, 1907) on a case of malignant endocarditis of diphtheritic origin, in which the terminal symptoms suggested the possibility of cerebro-spinal fever. A post-mortem examination (which included the removal of cerebro-spinal fluid by a lumbar puncture) revealed on further bacteriological investigation that both the cerebro-spinal fluid and the cardiac valvular vegetations contained Klebs-Löffler bacilli in pure culture. In view of Dr. Donaldson's researches, it may be not only interesting but useful to recall this almost unique record of a case of diphtheritic septicæmia to mind. The earlier symptoms of sore-throat had been very mild, and it was only by a close cross-examination of the parents after diphtheria bacilli were found post mortem that a history was obtained

[1] Evolution and Disease. Bristol: John Wright and Sons, Limited.

of slight sore-throat and ear-ache which apparently occurred three weeks before the onset of the terminal symptoms of malignant endocarditis and of cerebro-spinal meningitis.

I am, Sir, yours faithfully,

J. T. C. NASH,
County Medical Officer of Health for Norfolk.

Norwich, July 17th, 1915.

MIXED COLD VACCINE IN THE TREATMENT OF PNEUMONIA.

To the Editor of THE LANCET.

SIR,—During the last few months I have treated four cases of pneumonia with mixed cold vaccine. Three of the patients were children. To two of these the vaccine was given on the second day of the disease, with the result that the temperature came to normal and stayed there in 24 and 36 hours respectively, though the physical signs were a week in clearing up. Even allowing for the usually shorter attacks in children, it may be fairly claimed that pneumonias of 48 and 60 hours would probably, but for the vaccine, have had a longer period of pyrexia. In the so-called abortive cases the physical signs, in my experience, clear very rapidly. The third case, injected on the third day, was a double pneumonia of the septic type. The only apparent effect was that the temperature fell from 104° to 102°, reaching normal on the eighth day by lysis. The fourth case, in an adult, injected on the second day, ran a simple course with nothing of note to record. In every instance 1 c.c. of the stock mixed cold vaccine of St. Mary's Hospital was used.

Though I have injected pneumococcus vaccine on many occasions, I cannot recall cases so striking as the first two I now record, and it may be that some pneumonias have a mixed origin and yield more readily to a mixed vaccine.

I am, Sir, yours faithfully,

Formby, July 24th, 1915. ARTHUR C. WILSON.

ANTISEPTIC TREATMENT OF INFECTED WOUNDS.

To the Editor of THE LANCET.

SIR,—I trust that any remarks which I am about to make will not be considered as criticisms of authority (which I consider to be out of place at this juncture), but as a contribution to our knowledge on a most important matter, where up to the moment united and definite action seems to be lacking.

Two theories exist as to the best treatment of a wound infected with gas bacilli and streptococci. In one, free incisions, free drainage, isotonic irrigations and fomentations are considered satisfactory, and the primary or secondary application of chemical antiseptics positively injurious. In the other, free incisions, free drainage, early primary saturation with pure liquid carbolic acid or cresol paste, and fomentations are strongly advocated, and subsequent chemical antiseptic irrigation reckoned harmful.

There is a third proposition. I beg to advocate free incisions, free drainage, frequent (three-hourly) irrigation with hot peroxide lotion (when feasible submersion in same liquid twice daily), to be followed instantly by liberal irrigation with 1 in 40 to 1 in 100 of hot carbolic lotion, and hot mercurial (1 in 2000) fomentations. This plan of attack has been derived from 24 years' constant study of the most desperate bemudded wounds which the Great Southern railway engines and wagons could inflict, and I most confidently recommend its employment for the relief of wound infection at the base hospitals, combined with permanent outdoor treatment, champagne, and hypodermic injections of strychnia.—I am, Sir, yours faithfully,

JOHN O'CONOR, M.A., M.D. T.C.D.,
Senior Medical Officer, British Hospital, Buenos Aires.

June 16th, 1915.

THE STERILISATION OF ALBUMINOUS CULTURE MEDIA BY ETHER.

To the Editor of THE LANCET.

SIR,—In your issue of June 12th appears a short article by Dr. Paul Fildes and Dr. L. W. Rajchman with this title, in which they report having had great success in the sterilisation of serum by Ori's method. They say, "The serum or ascitic fluid is collected without any particular aseptic precautions." Again, "Within our experience this method has never failed to sterilise either ascitic fluid or serum," and "The sterilisation is rapid and certain to such an extent that it is unnecessary to prove the sterility before use."

I have been using lately fairly large quantities of serum, and also hæmoglobin, and have been troubled by contaminations, together with the low temperature at which they often "set," as mentioned by Dr. Fildes and Dr. Rajchman. Trusting to the very positive statements quoted above, I tried their method for preserving these fluids, and in consequence have been greatly disappointed and inconvenienced, as I find the ether method is of little value with regard to spore-bearing organisms, such as B. mesentericus, though no doubt effective with the common non-sporers such as B. coli. I scrupulously followed the method as published; the serum being obtained from a well-known firm, who do not, however, guarantee their serum, for media-making purposes, as sterile, although they endeavour to keep it free from contamination; the hæmoglobin was made by collecting blood from the slaughter-house in sterile bottles containing citrated saline, "without any particular aseptic precautions," separating the corpuscles by sedimentation in the cold chamber and extracting the hæmoglobin. It was then treated with ether by the method in question. When, later, the serum and the hæmoglobin were used in media they both proved grossly contaminated. They were then heated to 55° C. for an hour, incubated overnight at 37° C., and sterilised for an hour again at 55° C. They still proved not to be sterile, and grew freely when added to ordinary agar. (It will be observed that I had to heat to 55° C. to attempt sterilisation, which Dr. Fildes and Dr. Rajchman especially wished to avoid on account of the tendency to coagulum formation.) These results made me believe that, however efficacious the ether method may be in the case of organisms not in spore form, it was useless when spores were present. To settle this point I made the following experiment: A fresh bottle of serum was opened and ½ c.c. was added to an ordinary Petri dish, 10 c.c. of nutrient agar at 55° C. being then added, and the plate after setting was incubated for some days. From the same bottle 2 c.c. of serum was placed in a small sterile glass capsule; a needle, charged with B. mesentericus spores, was then introduced and the capsule well shaken. The appropriate amount of methylated ether was added and the glass neck of the capsule sealed by fusion. It was placed in an oven at 55° C. for half an hour, so that it was

thoroughly heated at an even greater temperature than Dr. Fildes and Dr. Rajchman advised. Having been left at room temperature for 48 hours or more it was opened aseptically, and about ½ c.c. put in a Petri dish and 10 c.c. of agar added. (It will be observed that the ether was not even boiled off according to the published method.) After incubating this plate 15 hours the whole medium was studded heavily with growth, both on the surface and in the depth. In the other plates, containing the serum without etherisation, one surface colony, probably an accidental contamination while pouring, was seen after three days, but after four days a few pale-greenish, lenticular, tiny colonies were observed in the depth of the medium.

It is quite obvious, therefore, that this method fails against spores of B. mesentericus, and as this organism, together with other spore-bearers, is so prevalent and the blood collected at the abattoirs in the ordinary way is unavoidably contaminated by the hair round the wound owing to the method of slaughter, I write this note to warn bacteriologists not to trust to it alone when collecting serum from similar sources for storage or they will most probably find themselves as inconvenienced as I have been.—I am, Sir, yours faithfully,

T. G. M. HINE,
Temporary Captain, R.A.M.C.

Royal Army Medical College, S.W., July 21st, 1915.

THE PROTECTION OF THE OPERATOR DURING THE DIRECT EXTRACTION OF PROJECTILES ON THE X RAY TABLE.

To the Editor of THE LANCET.

SIR,—I have employed certain precautions in the method of extracting projectiles guided directly by the X rays with a view to affording the operator more protection from their harmful effects.

The tube box under the table is entirely encased in lead 3 mm. thick, with the exception of the opening above for the passage of the working rays. In addition, a large leaden screen of ample dimensions and of the same thickness as before is hung on the front of the table to afford the operator an additional protection. It must be hung in such a way as to be easily movable along the length of the table and readily removable to give access to the tube.

The operation should be performed using the smallest diaphragm possible so that the hands can be kept almost always out of the direct line of fire. To give protection to the operator from "stray rays" I now use leaden shields. These are 3 mm. in thickness and a little over a foot square, and have a circular opening in the centre 3 in. in diameter. They are readily sterilisable and are used in the following manner.

At the preliminary radioscopical examination the situation of the foreign body is roughly determined in the manner I have described in my previous communications. The position of the patient and the probable site of the incision are also agreed upon.

When the actual operation comes to be performed, after the usual preliminaries (using the central rays of a small diaphragm), the point of a pair of long forceps is laid on the skin over the foreign body. The incision is now made, and any subsequent manipulations under the rays are made either with the sterile lead shield laid over or under the part involved in such a way that the foreign body is still visible through the opening. When over the part the manipulations are performed through the diaphragm in the centre of the shield; when under its presence does not affect the course of the operation except in that a more extensive sterilisation of the skin is necessary.

I now use as a rule long Spencer Wells forceps which have been slightly curved. With, then, a movable shield and such forceps protection is ample. Accidentally the finger-tips may be momentarily exposed, and as a protective the nail beds might be filled with a stiff iodoform ointment which is very opaque to the X rays.

I am, Sir, yours faithfully,

J. R. CALDWELL (Lieutenant, R.A.M.C.)

Baltic and Corn Exchange Hospital, British Expeditionary Force, France.

BREAST-FEEDING.

To the Editor of THE LANCET.

SIR,—I was much interested in Dr. H. K. Waller's article on Breast-Feeding in your issue of July 17th, and I quite agree with him that larger meals are obtained when the interval between the feeds is lengthened. I have often demonstrated this fact with the help of the test meal. We also know that infants living under good conditions get larger meals than those living in the slums; but when Dr. Waller asserts that "it is quite easy for any woman to find out how often her child requires feeding" I must disagree with him. I have seen so many cases in which the irregularity of the feeding times, quite apart from too frequent feeding, was the sole cause of wasting in breast-fed infants, that I feel his assertion cannot pass unchallenged.

Only the other day I saw the case of a breast-fed infant two months old not satisfied and suffering from vomiting and wasting. The muscles were very flabby and the bowels constipated. The mother fed it sometimes every two hours and sometimes every four or five hours, according as to whether she thought the child was hungry or not; if it was asleep in the daytime she did not wake it. She had been advised to give up breast-feeding, but in order to avoid expense she came for advice to the Infant Consultations. The "test feed" showed that the child obtained 2½ oz. from the breast; this is a fair average feed for a slum infant, so I told the mother she must feed her infant every three hours by the clock and wake the child up in the daytime for its meals. I wrote down the times for feeding and the mother promised to follow the directions. In a week's time there was great improvement, and in a fortnight's time all vomiting had stopped, the weight had increased 15 oz., the muscles were firmer, and the bowels regular. The child continued to make excellent progress, and single test feeds showed a gradual increase up to 6 oz. I only quote this case as an example of hundreds of others in which clock-like regularity in feeding has saved the child from being deprived of its mother's milk.

I am, Sir, yours faithfully,

Kensington, July 22nd, 1915. RONALD CARTER.

TONSILLECTOMY IN RELATION TO ACUTE RHEUMATISM.

To the Editor of THE LANCET.

SIR,—In view of the correspondence in THE LANCET in regard to tonsillectomy inducing rheumatism, I wish to say that I have performed the operation perhaps 200 times during the 13 years I have been in practice here, and I have no recollection of having seen acute rheumatism develop subsequently in those upon whom I have operated.

I am Sir, yours faithfully,

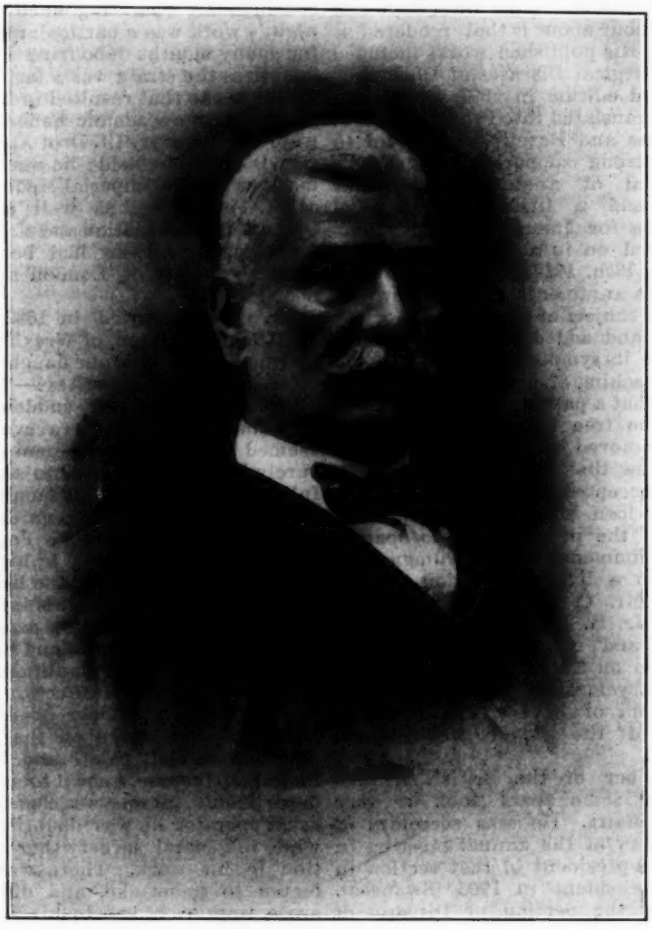
Wembley, July 23rd, 1915. WM. D. TRAILL THOMPSON.

Obituary.

EDMUND OWEN, M.B. LOND., F.R.C.S., LL.D. (HON.) ABERD., D.Sc. (HON.) SHEFFIELD,

SURGEON-IN-CHIEF TO THE ST. JOHN AMBULANCE BRIGADE; CONSULTING SURGEON TO ST. MARY'S HOSPITAL AND THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET; SURGEON TO THE FRENCH HOSPITAL; CHEVALIER DE LA LÉGION D'HONNEUR; KNIGHT OF GRACE OF THE ORDER OF ST. JOHN OF JERUSALEM

WE regret to have to record the death of Mr. Edmund Owen, which took place on July 23rd in Charing Cross Hospital, where he had been taken when seized with a paralytic stroke in St. James's-street on July 13th.



Edmund Owen

Edmund Owen, who was the son of Mr. William B. Owen, of Halifax, Nova Scotia, was born on April 7th, 1847, at Finchingfield, Essex. He received his early education at Bishop's Stortford and King's College, London, and his professional training at St. Mary's Hospital, London, and in Paris. He qualified as M.R.C.S. in 1868, and became F.R.C.S. in 1872, in the same year taking the M.B. Lond. In 1867 he was appointed demonstrator of anatomy at St. Mary's Hospital Medical School, which post he held until his appointment as lecturer on anatomy in 1876. In 1871 he was appointed surgeon to out-patients at St. Mary's Hospital, becoming full surgeon in 1882. In 1888 he was appointed lecturer on surgery, in succession to Mr. A. Trehern Norton. Mr. Owen's intimate and strenuous association with St. Mary's continued until his retirement from the active staff, when he was appointed consulting surgeon. He took a great interest at St. Mary's in all the activities of student life. The athletic club particularly enjoyed his support, and he was one of the founders of Sancta Maria Lodge, No. 2682, of Free and Accepted Masons, constituted within the school, and he was a Past Junior Grand Deacon of England.

His public professional energies were not, however, confined to St. Mary's, for he was in turn assistant surgeon, surgeon, and consulting surgeon to the Hospital for Sick Children, Great Ormond-street. He was also surgeon to the French Hospital, and consulting surgeon to the Paddington Green Children's Hospital, to the Royal Masonic Institute for Girls, and to the Royal Society of Musicians. This list of appointments shows Owen in his right character as a general surgeon. His anatomical knowledge, wide reading, and numerous opportunities gave his views a practical value that was recognised by his fellow practitioners and the public. He was equally at home at a rapid abdominal operation or in a deliberate manœuvre to repair a crippled foot; he was a careful diagnostician because he had many and varied experiences to sift before coming to an opinion, but he was not betrayed into inactivity by any over-caution. His colleague, Mr. Herbert Page, describes in a note which follows Owen's qualities as surgeon and teacher, and brings before us a vivid picture of the man.

Owen was intimately associated with the Royal College of Surgeons of England throughout his career. He was a member of the Council for 16 years (1897–1913) and of the Court of Examiners for 10 years (1889–1899), and a Vice-President of the College. In 1906 he delivered the Bradshaw lecture at the College on the subject of cancer, in which the views he expressed were practical, though not final. He insisted that at present the most effectual treatment, a term which he was careful to emphasise was not synonymous with cure, was removal with the knife, no matter how small the growth might be. Referring to laboratory experiences, concerning the occasional, though rare, spontaneous disappearance of cancer, he felt sure that the ultimate victory over it would not be solely by the knife. His Hunterian oration at the College in 1911 was

a clear, forcible, and eloquent picture of the greatest of biological teachers and the most original of British surgeons. Owen here laid stress on the view that Hunter's well-known protracted illness was a progressive arterial degeneration, the result of a deliberate experiment, for Hunter inoculated himself by means of a lancet with syphilitic virus to study the effects of the disease upon his own person.

Edmund Owen's services as an examiner were highly appreciated by the College and sought at different times by the Universities of Cambridge, London, and Durham.

He was a frequent and always pertinent and interesting contributor to medical journalism. His writing had a captivating colloquial directness and often a quizzical humour about it that rendered it interesting reading. His published works included "A Manual of the Surgical Diseases of Children," which reached a third edition in 1897, the second edition having been translated into French by Dr. O. Laurent; "Cleft Palate and Harelip," in regard to which he was a strong supporter of Brophy's methods; a "Manual of Anatomy for Senior Students" (1890); and a little book entitled "Appendicitis: a Plea for Immediate Operation," which was commented on in a leading article in THE LANCET of May 16th, 1914, in which he presented more fully the arguments advanced by him in a discussion on the subject at the Medical Society of London in 1913, and added thereto a general account of the disease, its symptoms, and the method of operation. The teaching of his work is summed up in the statement that a patient with an inflamed appendix will not be free from danger till the appendix has been removed, and the sooner that is done the better, a view that is in accordance with the principle widely accepted and acted on by many of the leading American surgeons, as expressed in the saying that "the proper time to operate in appendicitis is immediately on diagnosis." This position led to a lively discussion in our columns, in which Mr. C. Mansell Moullin, Sir George T. Beatson, Mr. H. J. Paterson, Mr. Owen, Mr. W. H. Battle, and others took part. He also wrote the article on Surgery in the eleventh edition of the "Encyclopædia Britannica," and one on the Treatment of Severe Club Foot in the Transactions of the Royal Medical and Chirurgical Society.

Owen was a member of the British Medical Association, and for some years took a very active part in its affairs. He was secretary of the Section of Surgery at the annual meeting in 1883 (Liverpool), vice-president of that section in 1885 (Cardiff), and president in 1903 (Swansea). He was president of the Section of Diseases of Children in 1899, when he delivered an address on Ununited Fractures in Childhood, and at the annual meeting in Sheffield in 1908 gave the popular lecture, taking for his subject Dust and Disease. When, in 1900, the proposals for the reorganisation of the constitution of the British Medical Association were exciting a great deal of controversy he was chosen as the chairman of the constitution committee, as the man whose impartiality and genial temperament made him best suited to pour oil on the troubled waters. He discharged the delicate duties which fell to him in a manner which fully justified his selection, and over and over again his genial and humorous interventions from the chair smoothed away difficulties which might have led to serious conflicts. A little later he was elected chairman of the colonial committee appointed by the Council of the Association in 1902, and in 1907 was elected chairman of the Council, and held that office up to 1910.

He was a Chevalier of the Légion d'Honneur and a Knight of Grace of the Order of St. John of Jerusalem, being also surgeon-in-chief to the St. John Ambulance Brigade. On the outbreak of war he threw himself with his accustomed energy into Red Cross work. We published in THE LANCET of Oct. 24th, 1914, an account by him of the establishment of the Epsom and Ewell War Hospital and its first reception of cases on Oct. 15th, when, on receipt of an urgent call at 8 P.M., he left London and was with other members of the staff engaged continuously operating until 4 A.M. Though that night's work was a particular occasion, he had been for many months labouring at great pressure, and doubtless the strain was a factor in the production of the stroke that resulted in his death.

Among the academic honours conferred on him were the honorary LL.D. of Aberdeen and the honorary D.Sc. of Sheffield; he was also a corresponding member of the Imperial Medical Military Academy at St. Petersburg, as well as of the American Orthopædic Association and of the Canadian Medical Association, and he had been President of the Medical Society of London and of the Harveian Society.

Mr. Owen married in 1882 Annie, daughter of Mr. Thomas Clayton, of Wrexham, who died in 1906, by whom he leaves four daughters.

Mr. Herbert Page writes:—"It came as a severe blow to hear of the sudden, mortal illness of Edmund Owen. If there ever was a man who seemed to be alive both mentally and bodily it was surely he, and it is hard to think of him save in full possession of all his faculties. I met him for the first time in 1875 at a garden party at Mr. T. B. Curling's place near Stoke Poges, and even in our young days was attracted by his striking personality. Shortly afterwards I became his colleague, and from that time to this, at St. Mary's, at the College of Surgeons, and as a fellow examiner have been in constant touch with him and his work, and admiration for his strength, manliness, and high character has grown into real affection for him. I mourn the loss of a very dear friend. And what of his surgery? His works on the surgical diseases of children, on cleft palate and harelip, and on club foot are, of course, known to everyone, and in these departments he was a recognised authority. Here as an operator he was doubtless seen at his best, while in general surgery there was marked distinction in his work. There was nothing which he feared to undertake, and difficulties, when they arose, were overcome by his courage and resourcefulness and by his knowledge of anatomy, in which he had been a teacher for many years. If onlookers might criticise they would perhaps have said that he gave too little thought to loss of blood, and he, of all men, honest to the backbone, would have least liked that this should not be said if it were generally believed. At first he took up an attitude of opposition to Listerian antiseptic methods, and poured contempt, both oral and written, on the ritual of the spray. He even went further than this, and at one of the societies, I think the Medical, when Lister brought forward his open operation for fractured patella, Owen, with characteristic temerity, remarked in parody of a famous saying, that it might be magnificent, but was not surgery. His papers and addresses on innumerable subjects were always pointed and

suggestive, while his little book on 'Appendicitis: a Plea for Immediate Operation,' published only last year, was one of the best things he did. A lucid writer, gifted with a singularly charming and effective style, this work has, I do not doubt, had much influence for good and is of lasting value. In the copy which he gave me this was written: 'With kindest possible greetings of a former colleague and perpetual friend.' Beautiful words, and just like Owen to write them.

The record of his long service to St. Mary's, both as surgeon and teacher, it is not easy to condense in words. An incisive speaker, with a marvellous store of apt illustration, he was a born teacher, as hundreds of students would amply testify. There was nothing anywhere quite like Owen's class in the theatre at the close of operations: by informed questions, by encouragement and sympathy, by veiled irony and gentle ridicule, by humorous invective, by instructive anecdotes of professional experiences, he seemed to draw all the boys unto him, and not even the most stupid of 'chronics' was afraid to go to the class again. Then the transparent honesty of the man, shown not least in an impulsiveness which led him to hasty conclusions, soon to be put aside, so that he would vote to-morrow against that which he had advocated to-day. You forgave, you laughed, and loved him the more. And now his life here is run, and we lay this garland on his hearse. His memory will long abide, as that of a fine Englishman, fearless, independent, straight, free from self-seeking, held in respectful veneration by countless students, trusted by his colleagues, and withal a most lovable man."

ANNUAL MEETING OF THE BRITISH DENTAL ASSOCIATION.—The thirty-fifth annual meeting of this association was held on July 24th in the Hall of the Medical Society of London. In a valedictory address Mr. W. Guy, the retiring President, said the war had given the dental profession the chance of rendering great and splendid service to the country in the treatment of recruits and serving soldiers, and an enormous amount of work was done in this way. In the matter of army dental treatment, however, the war found us unprovided with a definite scheme, and emergency measures became necessary. Commissions as temporary lieutenants were conferred on about 70 dentists, who were now doing duty either with the Expeditionary Forces or at home stations. The War Office circular of Jan. 22nd authorised a scale of payment for civilian dentists in providing treatment necessary to render a non-commissioned officer or man fit for service in the field. He believed the work of the army dentists was of the most arduous character, and the authorities were fully aware of its value. But what were 70 amongst so many? Some of the work done by civilian dentists for the troops was unsatisfactory owing to the insertion of dentures too soon after extensive extractions; this might be avoided if it were made a rule that a minimum period of, say, two months should elapse between extraction operations and the provision of dentures. The present system might be improved by instituting effective control and supervision by dental staff officers, but he held strongly that the only logical and efficient method of coping with the great problem of dental treatment for the men of our armies would be found in the establishment of an Army Dental Corps. He regretted to notice that his view was not shared by the Editor of THE LANCET, but his opposition was offset by the action of our gallant colonial brethren from overseas, who had sent to our aid their magnificent contingents, including properly constituted Army Dental Corps. In conclusion, Mr. Guy paid a tribute to the memory of five dentists and two dental students who had already fallen at the front. A hearty vote of thanks was passed to the retiring president on the motion of Mr. Rees Price, seconded by Mr. W. G. Campbell. Mr. W. H. Dolamore was then inducted as president.

The War.

THE CASUALTY LIST.

THE following names of medical men appear in the casualty lists published since our last issue:—

Killed: Major D. R. Taylor, R.A.M.C. (T.F.), attached 4th King's Own Scottish Borderers (T.F.); Captain M. F. Reaney, I.M.S., attached 1/5th Gurkha Rifles; Captain J. J. Dykes, 1/5 King's Own Scottish Borderers, was also a medical man and held the triple Scottish qualification.

Died: Lieutenant E. A. Wright, R.A.M.C., who died at Alexandria on June 20th, was the only son of Mr. A. Wright, M.R.C.S., of Romford.

Wounded: Lieutenant J. Cattanach, R.A.M.C., attached Royal Warwick Regiment; Lieutenant C. S. P. Black, 6th Highland Light Infantry (T.F.) Lieutenant Black was formerly on the medical staff of the unit sent out by the Red Cross to Serbia during the Balkan War, 1912.

THE HONOURS LIST.

The Military Cross has been awarded to the following medical officers:—

Lieutenant William Kelsey Fry, R.A.M.C.

For conspicuous gallantry and devotion to duty at Festubert between May 16th and 18th, 1915, while carrying out his work under heavy fire. He was himself wounded while attending to others.

Lieutenant David James Sheires Stephen, R.A.M.C.

For conspicuous gallantry and devotion to duty in attending to the wounded under heavy shell fire on several occasions, notably on the night of April 23rd and on May 8th, 1915.

He has usually performed his gallant work single-handed, and by his cheerfulness and pluck has encouraged all around him.

DEATHS AMONG THE SONS OF MEDICAL MEN.

The following sons of medical men are to be added to our lists of those who have fallen during the war:—Mr. C. T. Martin, R.N., Assistant Clerk, H.M.S. *Monmouth*, elder son of Dr. George Martin, of Silloth, Cumberland; Lieutenant T. Prain, only son of Lieutenant-Colonel Sir David Prain, C.I.E., I.M.S., retired, Director of the Royal Botanical Gardens, Kew; Captain J. G. L. Ranking, elder surviving son of Lieutenant-Colonel G. S. A. Ranking, I.M.S., retired; Lieutenant G. J. O. Bull, R.E. (T.F.), second son of Colonel W. H. Bull, F.R.C.S. Edin., V.D., of Stony Stratford; Lieutenant R. M. Forbes Ross, 3rd King's Own Lancaster Regiment, son of the late Dr. Forbes Ross, of London; Second Lieutenant A. H. M. Henderson, 1/4th King's Own Scottish Borderers, eldest son of Dr. P. J. Henderson, of Galashiels, was also a medical student of Edinburgh University; and Lieutenant E. B. Pollard, R.E., youngest son of Mr. G. R. MacI. Pollard, M.R.C.S., L.R.C.P., of Moffat.

PROMOTION IN THE SPECIAL RESERVE AND TERRITORIAL R.A.M.C.

Mr. Forster, the Financial Secretary to the War Office, has stated in the House of Commons that it has been decided to promote to the rank of Captain all Lieutenants of the Special Reserve and Territorial Force, Royal Army Medical Corps, who have given six months' mobilised service, with effect from April 1st last. Steps are now being taken to carry out this decision.

THE PROMOTION OF LIEUTENANTS, R.A.M.C. (T.)

The War Office has taken a step with regard to the rank of the officers in the Royal Army Medical Corps (Territorial) which will meet with universal approval. All lieutenants in the Territorial Branch and Special Reserve of the Royal Army Medical Corps, who have been mobilised for six months or more, will be promoted captains. The unfairness hitherto of the positions of these officers has been the subject of numerous comments and protests. Higher rank means higher pay, though the difference between the pay of a lieutenant and a captain is not very great.

The position of temporary lieutenants in the Royal Army Medical Corps is, we understand, under consideration, and the junior officers with temporary commissions, who receive recommendations from their superiors, may obtain similar promotion as regards rank, though after a possibly longer period of service. Their position is different from that of the Special Reserve and Territorial officer, inasmuch as their service is on an accepted contract signed by them.

The following letter, typical of many that we have received during the last few months, shows how difficult it is for some of the holders of temporary rank to reconcile themselves with the attitude of the War Office.

"SIR,—I greatly regret that so little protest has been made on the question of rank in the Royal Army Medical Corps. I particularly refer to medical men over 40 years of age. Almost all of such have joined out of simple patriotism and at great inconvenience and financial loss to themselves, to quickly realise what the greatly inferior rank accorded to them means in having to 'give place' to majors and captains mostly their juniors in age and experience; to most this is galling and totally uncalled for. The lowest rank that should be offered is that of captain and ought in simple fairness to be that of major. For obvious reasons this is a matter of great importance, and higher rank than that of a subaltern should be insisted on and obtained; if not, after the first year's covenanted service many men over 40 years of age, and a large number of those younger also, will refuse further service.—I am, Sir, yours faithfully,

"TEMPORARY SUBALTERN, aged 49."

This complaint is based on misunderstanding of the nature and purpose of military rank. It has no relation whatever with the medical officer's years or experience as a medical man, but refers solely to his experience as a military officer and to his fitness for military command within his corps, qualities altogether apart from and in no sense dependent on his capabilities or experience in the practice of medicine and surgery. The officer present who is highest in rank must command, all others following in their definitely arranged precedence. If medical men of age and experience in their profession serving as temporary military medical officers were given high rank in accordance with their supposed professional status, it might easily happen that the military command within the corps would devolve upon men of no military experience whatever.

MEDICAL PRACTICE AND "AFTER THE WAR."—The following letter reveals the anxiety for the future which must arise when a medical man in practice has joined the Royal Army Medical Corps for the period of the war. The letter is by the wife of a practitioner who has left a private practice and a large number of insured patients, as well as a house and establishment consistent with the income derivable from the practice described. We publish it, with appended comments, as it is an example of the kind of difficulty which the new War Emergency Committee will have to deal with.

"SIR,—May I draw your attention to a rather serious state of things which will embarrass the patriotic panel doctor when he returns (if he does) after the war is over. To state my own case for instance. I am the wife of a medical man who left a good private practice and about 800 panel patients which has taken 14 years of hard work to build up, to join the R.A.M.C. Since he has left I have still to keep up the house, which is much larger than I need now, with its attendant heavy rates, &c. The private practice has gone elsewhere—to other doctors who have remained behind—and the panel work, which is under Government, to men in the immediate neighbourhood of the patient. I understand these men expect to be paid for their work, which, in reality, should be *their* patriotic 'bit' if they won't go into the army, for the man who has sacrificed so much at the risk of what he returns to. Not only then will we lose our private practice, but we have also got to hand over to these doctors a half or a third of our panel money which should be kept in reserve and never touched to keep myself, husband, and children, when he comes back and until such time as he is able to build up another practice with the remains that are left. The whole of last month's panel cheque went to pay rent, rates, and taxes, and a greater part of this month's will go the same way, so that we have to live on my husband's army pay after messing, &c., has been deducted from it.

"Sir, if there is anything you can do in the matter to bring this before the Government who organised the panel system, please do it. Don't let the man who has no private means to keep him afterwards have not only to sacrifice his private practice but be the loser also of £200 or £300 out of his panel money as a toll for his patriotism—it isn't fair. And since the panel is entirely organised by Government it should have within it power to dictate terms by which the man who left everything so that our soldiers should be assisted in their sufferings, thereby keeping those who remained behind safe, should lose nothing by his unselfishness.

"Trusting you will be able to do this on behalf of many placed like myself with children and relatives to care for,

"I am, Sir, yours faithfully,

"A DOCTOR'S WIFE."

We hope, and confidently believe, that our correspondent's fears for the future will not be justified by what will happen "after the war," but the letter, which is an example of a good many communications which have reached us in the last two or three months, is a commentary upon the need for the institution of the new War Emergency Committee. To speak generally, and without reference to a particular case as to the details of which we are not informed, a medical man leaving a "good private practice" will have made arrangements to secure the treatment of his patients and their eventual return to him. For the carrying out of those arrangements he will safely rely upon the honour of the colleagues with whom he has made them. If they should not be loyally observed the matter will be one for the consideration of his medical brethren not directly interested, and these, jealous for the honour of their profession, will see that justice is done so far as it lies in their power. Panel committees and other medical bodies all over the kingdom are giving anxious consideration to the difficulties which have arisen, and which affect not only the practitioner who is serving his country but his colleagues left behind and, not of least importance, his patients.

We are not in sympathy with the suggestion that all the work done for those serving should be performed gratuitously, which appears to be our correspondent's view. We do not believe that this would be just or practicable, and the War Emergency Committee will assuredly take note of the situation from the beginning. Trust must be placed in the loyalty of medical brethren severally and collectively interested, and the forthcoming organisation of measures to safeguard absent practitioners. The domestic arrangements of the individual must, however, depend largely upon himself and upon those acting with him. Many have gone to the war leaving inadequate means for the upkeep of their homes, and this in other professions besides that of medicine. Thousands, or we may safely say hundreds of thousands, in all ranks have sacrificed income in order to join in the defence of their country besides members of the medical profession. In all cases it is for those left behind to see that those returning from the war find themselves no worse off than when they went out to risk their lives for us.

THE CRIPPLE IN WAR.—Queen Mary's Convalescent Auxiliary Hospitals, the institution established for the care of sailors and soldiers who have lost their limbs in

the war, is under the patronage of the Queen and Queen Alexandra, and the presidency of Lord Kitchener and Mr. Balfour, and its home, Roehampton House, is one of the most beautiful mansions in the immediate neighbourhood of London.

A conference was held at Roehampton House on July 22nd to discuss the supply of artificial limbs to the mutilated in the war. Sir W. Watson Cheyne, President of the Royal College of Surgeons of England, who presided over the conference, pointed out that the fitting of artificial limbs was necessarily more difficult in military practice than in civil, where the operations could be designed to preserve the best stumps for the fitting of artificial limbs. No such operations on set lines could be designed in military surgery. Sir A. W. May, Director-General of the Navy Medical Service, bore testimony to the value that such an institution as Roehampton House might be to the patients during the tedious process of fitting them with artificial limbs. He pointed out that the conference would be of great practical use if the orthopædic surgeons, who had been round the exhibition of patients and instruments which was being held in connexion with the conference, would give advice upon which future action might be taken. Surgeon-General M. W. Russell, speaking on behalf of Sir Alfred Keogh, Director-General of the Army Medical Service, who was unable to be present, said that they all looked to orthopædic surgeons for counsel as to the particular instruments that should be supplied to the soldier, and a resolution was passed asking the orthopædic surgeons present to draw up a report recommending the most suitable artificial limbs for the various amputations.

Colonel T. H. Openshaw announced the verdict of the experts on the different exhibits. He said that he and his co-judges were unanimous that the gold medal for the greatest advance in mechanism should be given to the Carnes Artificial Limb Company, of Kansas, U.S.A. The instrument selected for special notice in this way was an artificial arm, by means of which the man who wore it could light a cigarette or pick up a hair. It was attached at a point level with the middle of the humerus. The medal was provided by Mrs. Gwynne Holford, to whom the scheme owed its origin. Mr. C. H. Kenderdine, honorary secretary to the institution, presented the silver medal in the same section; it was given for an artificial leg, which was made by the patient himself, and was exhibited by Messrs. Mayer and Meltzer, of Great Portland-street, London, W. A medal for an exhibition of general excellence was awarded to Messrs. J. F. Rowley and Co., of Chicago, and the patients who were present wearing the limbs made by this firm were able to give extraordinary manifestations of agility and control. A silver medal in the same class was awarded to Messrs. Grossmith, of the Strand, London, W.C. A third gold medal will be awarded later for the forms of instrument which best fulfil the requirements of the soldier.

FOOD FAKES IN WAR.—The desire of relatives at home to send food and delicacies to their men-folk in the trenches has been exploited by unscrupulous traders in Germany, and some novelties in fraudulent food products have been developed in this way. One of these is "solid alcohol," advertised as a substitute for familiar alcoholic drinks like punch. The specimens sold consist of cubes of gelatin, to which brandy and sugar have been added before the mixture has solidified. The directions are to pour hot water on these cubes, whereupon one obtains a sweetish fluid, weak in alcohol, and possessing a rather disagreeable flavour of glue. The longer the cubes are kept the greater is the tendency of the alcohol originally present to disappear by evaporation, so that the supposedly invigorating "solid brandy," never at any time a representative product, becomes weaker and weaker in alcoholic strength. In some cases the cubes have been replaced by collapsible tubes of semi-gelatinous mixtures containing some brandy and advertised for use in the same way with hot water. The price of 60 c.c. (2-ounce) tubes varies from 25 to 35 cents. The alcohol content has gradually been reduced by the astu e manufacturers, and one firm went so far as to introduce brandy substitutes and substances of a "peppery" nature to stimulate the "warmth" of a dose of brandy. Painful irritations in the mouth have been reported by soldiers on the march who were unable to wash out the fraudulent adulterant that was sent to them at high cost by affectionate friends. Equally outrageous has been the traffic in "substitutes" for the much desired alcoholic beverages—often nothing more than a cube of sugar coloured red with dyes admixed with citric or tartaric acid. The concoction, prepared by addition of hot water to this "present from home," is an inferior kind of artificial lemonade. Coffee and cocoa have likewise been dispensed in tablet form of most inferior quality at exorbitant prices. One pound of a favoured brand, doubtless wrapped in covers with ennobling messages to the heroes of the war, sold at the rate of $3 (12 marks) per pound!

In the issue of July 10th, of the *Journal of the American Medical Association* this production of "food fakes" is exposed with scathing comments. Coffee, says our contemporary, has been often replaced by chicory, diluted with sugar. It is reported that 500,000 kilograms of cacao husks found their way into the market in Hamburg alone. Tablets supposedly made of dried milk, but evidently deteriorated or else originally inferior, have been unloaded on the willing buyers who have been made innocent victims of their humane impulses.

Owing to a peculiar wording of the German laws respecting food adulteration, which insist in certain cases that adulteration involves imitation, many prosecutions have failed, the defence maintaining that a new or novel product like a cube of "solid alcohol" cannot represent adulteration. The faker, the article says in conclusion, is a heartless villain who knows neither integrity nor patriotism. In war, as in peace, he feeds on the gullibility of his patrons.

TRIAL OF MADAME PIAGET FOR LIBELLING THE GERMAN RED CROSS.—A Swiss correspondent writes: "The trial of Madame Rebecca Piaget, a Swiss lady, charged with having accused German Red Cross nurses of having inoculated French soldiers with poison instead of serum, has just taken place at Neuchâtel. Madame Piaget levelled this serious charge in a Swiss newspaper, but subsequently, realising its lack of foundation, she withdrew it. Herr von Pfuel, of Berlin, the president of the central branch of the German Red Cross Society, was not satisfied with this withdrawal, and it was at his instigation that the prosecution took place. A dozen witnesses were called for the plaintiff, among them being Countess Ulkull-Gyllenbach, one of the patronesses of the German Red Cross Society, and one and all declared that German nurses would be incapable of such criminal conduct. As a matter of fact, they had frequently received congratulations from British and French prisoners for their care and devotion during illness. The witnesses for the defence spoke of the charity which Madame Piaget had always displayed in various directions, and agreed that her unfounded accusation was due to misjudgment and not to malice. The judge acquitted the accused and ordered the State to pay all costs. He based his judgment upon the ground that 'in its impersonal and unprecise form the imputation of Madame Piaget did not affect the honour of the plaintiff nor of the society which he represented, but merely the honour of some indeterminate persons.' The judgment was received with applause in court. A striking feature of the case was the address delivered by Maitre Favarger, counsel for Madame Piaget. He recalled the atrocities without number of which the German authorities have been guilty, said that German soldiers had used the Red Cross flag to cover their guns, and maintained that Germany had trampled under foot all international conventions."

THE QUEEN'S UNIVERSITY OF BELFAST AND COMPULSORY MILITARY TRAINING.—At a meeting of the Senate of the Queen's University of Belfast, held on June 20th, the following resolutions were adopted unanimously:—

1. That the following regulation be made: All male students who are in attendance at the University as matriculated students shall, during the continuance of the war, be required to attend a course of physical and military training for at least two hours a week for the first and second terms of the session, and obtain a certificate of efficiency, unless they furnish to the committee of discipline satisfactory evidence of inability to perform the necessary work; and that no fee shall be charged the student for such tuition; that the subject of physical and military training be added to the subjects of each of the faculties of arts, science, law, medicine, and commerce.

2. That a committee be appointed to consider whether and in what way provision should be made for the training of women students in ambulance work, sick nursing, and other similar subjects.

THE SCOTTISH WOMEN'S HOSPITALS.—A travelling X ray motor ambulance has been raised by the London Committee of the Scottish Women's Hospitals through a special fund raised by public subscription, and will soon proceed to the front. It was on view in the grounds of Bedford College, Regent's Park, on Thursday and Friday of this week. Dr. Isabel Elmslie, assistant medical officer of the Royal Edinburgh Mental Hospital, is leaving shortly for the hospital at Troyes, France. Miss Beatrice Smith, one of the laboratory assistants at Morningside, has been appointed laboratory assistant to Dr. Elmslie.

BELFAST DOCTORS FOR THE FRONT.—Dr. Thomas Houston (hæmatologist to the Royal Victoria Hospital), Dr. John MacIlwaine (assistant physician), and Mr. P. T. Crymble (surgical registrar to the same institution), as well as Dr. John McCloy (assistant tuberculosis officer to the Belfast corporation), have gone to Étaples, near Boulogne, to join the staff of the St. John Ambulance Brigade Base Hospital there. Dr. Houston goes as physician and pathologist, Dr. MacIlwaine as physician, Dr. McCloy as assistant pathologist, and Mr. Crymble as radiographer. Dr. McCloy has been given the rank of lieutenant and the others that of captain.

A Red Cross hospital has been established at Eltham as an auxiliary to the Royal Herbert Hospital, Woolwich, in the premises acquired by the London County Council for a hostel to Avery Hill Training College. It will accommodate 240 patients. The commandant is Mrs. Phipps-Hornby, and the matron Miss Munroe.

Professor G. L. Gulland, professor of medicine in the University of Edinburgh, has accepted the position of consulting physician at Malta, with the rank of colonel. He will leave for the Mediterranean very shortly. The appointment is for four months.

Dr. Malcolm Wilson, lecturer on mycology and bacteriology at the Royal Botanic Gardens, Edinburgh, has accepted the post of pathologist to the London County War Hospital. The University Court has granted Dr. Wilson the necessary leave of absence, and he will take up his duties shortly.

AN open-air fête in aid of the Whitehill Red Cross Hospital and the Soldiers' and Sailors' Families' Association was held in the King's Park, Dalkeith, on June 24th, when there was a large and representative attendance of visitors.

Corporal W. Steadman, R.A.M.C., attached to 9th Lancers, has been awarded the D.C.M. for gallant conduct in the field. On May 13th he accompanied Lieutenant G. H. Lunan, R.A.M.C., in an endeavour to reach a number of wounded men in an exposed and dangerous zone of trenches near Wieltze. Lieutenant Lunan was killed and Corporal Steadman drew his body under cover.

Major David R. Taylor, R.A.M.C. (T.F.), who has been killed at the Dardanelles, had been in practice in Ayton, Berwickshire, for about 20 years. He leaves a widow and five children.

CLAPHAM MATERNITY HOSPITAL.—The Duchess of Vendôme opened the New Clapham Maternity Hospital, Jeffreys-road, S.W., on July 23rd, and after inspecting the buildings presided at the annual meeting. The adoption of the twenty-sixth annual report was moved by Dr. Caroline Sturge, chairman of the general committee, seconded by Dr. Annie McCall, and carried unanimously. Dr. Louisa Garrett Anderson, Dr. Isabella Macdonald, and Dr. Letitia Bernard were among the speakers.

TRAINING OF DEAF AND DUMB CHILDREN.—Lord Aldenham presided over a summer fête and prize distribution at the Royal School for Deaf and Dumb Children at Margate on July 24th. The prizes were distributed by Lady Hertslet. Lord Aldenham made an earnest appeal for the continued support of an institution which was training children for the work of the future when there might be a lack of hands to do it. Tailoring, bootmaking, and carpentering were among the occupations in which the children showed much skill.

Medical News.

UNIVERSITY OF OXFORD.—Mr. Cecil D. Wood, B.A., Queen's College, has been elected to the Theodore Williams Scholarship in Pathology.—The following degrees have been conferred :—

B.M., B.Ch.—C. M. Burrell; Robert J. Inman, University; R. C. Fairbairn, Exeter; O. H. Gotch, New; John M. Guilfolye, Brasenose; H. A. B. Whitelocke, Christ Church; R. W. A. Cushing, Marcon's Hall; and J. B. Cavenagh, Magdalen.

The following candidates have been approved in the subjects indicated :—

Organic Chemistry.—E. H. Cluver, Hertford; F. B. Dutton, M.A., and R. Ginsburg, Magdalen; H. P. Hodge, B.A., non-collegiate; J. G. Johnstone, St. John's; and W. V. Robinson and E. A. Woods, New.

Anatomy and Physiology.—K. A. I. Mackenzie, B.A., Trinity.

Materia Medica.—F. L. Apperly, B.A., Lincoln; J. N. L. Blamey, New; G. K. Bowes, B.A., Christ Church; C. M. Burrell, B.A., University; J. M. H. Campbell, B.A., and J. B. Cavenagh, B.A., Magdalen; E. Creed, B.A., and W. S. Dawson, B.A., Trinity; G. Perkins, B.A., Hertford; A. Traill, B.A., New; S. C. Varley, B.A., St. John's; D. M. P. Whitcombe, B.A., New; and C. D. Wood, B.A., Queen's.

Forensic Medicine and Hygiene.—C. M. Burrell, B.A., University; J. B. Cavenagh, B.A., Magdalen; A. G. East, B.A., St. John's; L. Gameson, B.A., Queen's; G. T. Gimlette, B.A., St. John's; O. H. Gotch, B.A., New; J. M. Guilfoyle, B.A., Brasenose; R. J. Inman, B.A., University; H. S. Jeffries, Queen's; M. R. Lawrence, B.A., St. John's; and H. M. Oddy, B.A., and J. F. West, B.A., Christ Church.

Pathology.—F. L. Apperly, B.A., Lincoln; C. M. Burrell, B.A., University; J. M. H. Campbell, B.A., and G. I. Evans, B.A., Magdalen; G. T. Gimlette, B.A., St. John's; H. S. Jeffries, Queen's; T. E. Micklem, B.A., and A. Traill, B.A., New; S. C. Varley, B.A., St. John's; D. M. P. Whitcombe, B.A., New; and C. D. Wood, B.A., Queen's.

Medicine, Surgery, and Midwifery.—F. L. Apperly, B.A., Lincoln; C. M. Burrell, B.A., University; J. B. Cavenagh, B.A., Magdalen; R. W. J. A. Cushing, B.A., Marcon's Hall; R. C. Fairbairn, B.A., Exeter; O. H. Gotch, B.A., New; J. M. Guilfoyle, B.A., Brasenose; R. J. Inman, B.A., University; and J. F. West, B.A., and H. A. B. Whitelocke, B.A., Christ Church.

UNIVERSITY OF LONDON.—At examinations held recently the following candidates were successful :—

M.D. EXAMINATION.

Branch I., Medicine.—Donald Ewart Morley, B.S., London Hospital; Purushottam Tulsidas Patel, B.S., London Hospital and Grant Medical College, Bombay; *John Henry Sheldon, Victoria University of Manchester; and Catherine Violet Turner, B.S. (University Medal), London (Royal Free Hospital) School of Medicine for Women.

Branch II., Pathology.—Arnold Renshaw, B.S., Victoria University of Manchester.

Branch IV., Midwifery and Diseases of Women.—Kate Anne Platt, B.S., London (Royal Free Hospital) School of Medicine for Women.

Branch V., State Medicine.—William Alfred Brend, B.Sc. (University Medal), King's College Hospital.

* Obtained the number of marks qualifying for the University Medal.

M.S. EXAMINATION.

Branch I., Surgery.—Clement Edward Shattock, M.D., University College Hospital.

SECOND EXAMINATION FOR MEDICAL DEGREES: PART II.

Arthur Lawrence Abel and Santiago Ernesto Barraza, University College; Edward Vincent Beaumont, St. Mary's Hospital; Ursula Poussett Blackwell, London (Royal Free Hospital) School of Medicine for Women; John Churchill Blake, University College; Alfred Octavius Bolton, Joseph Erwin Adolphe Boucaud, and Geoffrey Bourne, St. Bartholomew's Hospital; John Walker Brash, St. Mary's Hospital; Reginald Bertram Britton, University of Bristol; Ellinor Marjorie Burnett, London (Royal Free Hospital) School of Medicine for Women; Francis Caldecott Guy's Hospital; Donald Cameron, St. Bartholomew's Hospital; Hayward Carpenter, Charing Cross Hospital; James Edwin Carpenter and Octavius Cyril Carter, London Hospital; Bodh Raj Chaudhri, King's College; Henry Joseph Constantine Churchill, St. Bartholomew's Hospital; *Douglas Crawford Clark, King's College; Eric Vere Corry and †Hari Das, University College; Evariste de Robillard, Guy's Hospital; Phyllis Decima Dixon, London (Royal Free Hospital) School of Medicine for Women; Edwin Francis Fernando, University College and St Mary's Hospital; Maud Gazda, B.Sc., London (Royal Free Hospital) School of Medicine for Women; Johan Coenraad Gie, Guy's Hospital; Aziz Girgis, London Hospital; Edward Norman Glover, Guy's Hospital; Lionel Bernard Goldschmidt, King's College; Lionel Charles Goument, St. Bartholomew's Hospital; Ronald Benjamin Green, University College; John Francis Howells, University College and University College, Cardiff; Oscar Hyam Hyman, St. Thomas's Hospital; Naughton Reginald Jenkins, University College, Cardiff; Nal Kamchorn and George Edwin Kidman, Guy's Hospital; Charles Ainger Kirton, University College; Ernest Alfred Leviseur, Guy's Hospital; Kenneth McFadyean, University College; Thomas Hawks McLeod, King's College; Humphrey Ingilby Marriner, St. Thomas's Hospital; Cecily Margaret Evadne Maude and Annie Shortridge Mules, London (Royal Free Hospital) School of Medicine for Women; Edith Marjorie Newman, University College, Cardiff; Manek Jamshedji Panthaky, King's College; Sigrid Letitia Sharpe Pearson, London (Royal Free Hospital) School of Medicine for Women; †Arthur Winifred Peeris, University College and St. Mary's Hospital; Stephen Henry de Grave Pritchard, London Hospital; John Saunders Lewis Roberts and Henry Rowan, University

College; John Francis Ryan, St. Thomas's Hospital; Samuel Sacks' London Hospital; Cedric Kennedy Scales, King's College; Charlotte Annie Shields, London (Royal Free Hospital) School of Medicine for Women; Kildare Lawrence Singer, Middlesex Hospital; Eric Clarence Spaar, B.A., Ceylon Medical College and Middlesex Hospital; Raymund Theron, London Hospital; Alfred Robert Tothill, King's College; Jeremias Auret Van Heerden, St. Bartholomew's Hospital; Gladys Millicent Rutland Webster and Kathleen Suzanne Vine, London (Royal Free Hospital) School of Medicine for Women; Kenneth Tratman King Wallington, University College; Keith Montague C. Woodruff, Guy's Hospital; Ephraim Benjamin Woolf, London Hospital; Irene Yates, London (Royal Free Hospital) School of Medicine for Women; and William Yeoman, University College.

* Distinguished in Anatomy. † Distinguished in Pharmacology.
‡ Distinguished in Physiology.

This list, published for the convenience of candidates, is issued subject to its approval by the Senate.

LONDON SCHOOL OF TROPICAL MEDICINE.—The following were the successful candidates at the examination held at the end of the forty-eighth session (May-July, 1915):—

Miss G. J. Campbell, M.D. Glasg.; N. Wilson, M.B., B.S. Melb.; Miss M. E. E. Smith, M.B., B.S. Lond.; A. C. d'Arifat, M.R.C.S., L.R.C.P. Lond.; S. K. Vaidya, M.R.C.S., L.R.C.P. Lond., L.M.S. Bombay; V. L. Sathe, L.R.C.S. Edin., L.M.S. Bombay; and Miss J. A. Vaughan, M.B., B.S. Durh.

SOCIETY OF APOTHECARIES OF LONDON.—At examinations held recently the following candidates passed in the subjects indicated:—

Surgery.—F. W. Chamberlain (Section II.), Middlesex Hospital; H. A. Cottin (Sections I. and II.), Caracas and Middlesex Hospital; R. N. Cozier (Sections I. and II.), Kingston, Ontario; K. M. Dyott (Section II.), Oxford and London Hospital; N. Hoffmeister (Sections I. and II.), Middlesex Hospital; H. L. Hughes (Sections I. and II.), St. George's Hospital; H. S. Jeffries (Sections I. and II.), London Hospital; H. Morrison (Section II.), St. Mary's Hospital; J. E. Rusby (Sections I. and II.), Leeds; and M. C. Stark (Section II.), London Hospital.

Medicine.—J. A. A. Boddy (Section II.), Manchester; K. M. Dyott (Sections I. and II.), Oxford and London Hospital; J. E. Rusby (Sections I. and II.), Leeds; and M. C. Stark (Section II.), London Hospital.

Forensic Medicine.—W. E. P. Briggs, Manchester; W. Fox, Charing Cross Hospital; H. S. Jeffries, London Hospital; and J. G. T. Thomas, St. Mary's Hospital.

Midwifery.—G. T. Baker, Middlesex Hospital; J. Y. Dent, King's College Hospital; H. S. Jeffries and W. J. May, London Hospital; A. Traill, Oxford and Guy's Hospital; and G. C. N. Younger, Middlesex Hospital.

The diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery:—J. A. A. Boddy, F. W. Chamberlain, H. A. Cottin, R. N. Cozier, K. M. Dyott, N. Hoffmeister, H. Morrison, J. E. Rusby, and M. C. Stark.

THE LATE SIR JAMES MURRAY.—The death occurred at Oxford on July 26th of Sir James Augustus Henry Murray, the editor of the Philological Society's New English Dictionary, which was begun at Mill Hill in 1879 and continued at Oxford. Sir James Murray was born at Denholm in 1837, was a schoolmaster at Hawick, and subsequently master at Mill Hill School. The tenth and last volume of the dictionary has not yet been completed. This dictionary, as each part has been delivered, has been of the first interest to all scientific workers, and medical men have had frequent cause to be grateful for the information contained in it upon medical terms.

THE NEED FOR WOMEN DOCTORS.—Dr. Mary Scharlieb, presiding over the distribution of prizes at the Manchester High School for Girls at the Free Trade Hall, Manchester, on July 22nd, said that women doctors were very badly wanted not only in this country but abroad. In India, where the native women required to be taught the very rudiments of sanitary science, women doctors were especially wanted. She urged her hearers to choose the medical profession, which she said would bring in an income of from £400 to £500 a year, and many could earn £1000 a year and more. Plenty of research work was waiting for investigators.

THE BARNSTAPLE (DEVON) RURAL DISTRICT.—The medical officer of health of the Barnstaple rural district (Dr. H. C. Jonas), in his annual report for 1914, states that the death-rate was 11·94 per 1000. The infant mortality rate was 62·69 per 1000 births. He alludes to the need of an infectious diseases hospital for the district, and states that the non-tidal waters of the rivers Taw and Torridge received sewage contamination at many points.

A Patriotic Food League for Scotland was inaugurated at a meeting in Edinburgh on July 19th, which was taken part in by Lord Salvesen, Lord Strathclyde, Miss Haldane, and others. The object of the new body is the prevention of waste, and a systematic campaign for household economy will be started.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

General Medical Council Elections.

IN the course of the proceedings on the Elections and Registration Bill in the House of Commons, Mr. LONG, the President of the Local Government Board, mentioned that the General Medical Council was one of the bodies to which it would apply. Elections of members may thus be postponed during the continuance of the war.

British Casualties.

Mr. ASQUITH has caused the following tables, showing the casualties among the British Forces, to be circulated with the Parliamentary papers:—

Naval Casualties up to July 20th.

Officers—		Men—	
Killed	499	Killed	7430
Wounded	87	Wounded	787
Missing	29	Missing	274
	615		8491
Total	9106		

Military Casualties up to July 18th.

—	Killed.		Wounded.		Missing.		Total.	
	Officers.	Men.	Officers.	Men.	Officers.	Men.	Officers.	Men.
France	3288	48,372	6803	156,308	1163	50,969	11,254	255,649
Dardanelles (including Naval Division)	567	7,567	1379	28,635	198	10,892	2,144	47,094
Other theatres of operations (excluding German South-West Africa ... ...)	145	1,445	248	3,247	22	641	415	5 333
	4000	57,384	8330	188,190	1383	62,502	13 813	308,076
								321,889

The Parliamentary Recess.

Parliament is now entering upon a recess of about six weeks.

HOUSE OF LORDS.

MONDAY, JULY 26TH.

Treatment of Nerve-shaken Soldiers.

Earl LYTTON asked the Government what provision was being made for the hospital treatment of nerve-shaken soldiers who had been medically diagnosed after an interval for rest as "uncertifiables."

Lord NEWTON (Paymaster-General) replied that nerve-shaken soldiers who were "uncertifiables" were treated in the neurological sections of the military hospitals, of which there were 23. In addition to those, accommodation was available at two institutions which were formerly under the Board of Control. These neurological cases were divided into four classes: (1) cases of nerve injuries arising from wounds; (2) cases of men who were quite insane; (3) cases of a minor character; and (4) cases of epilepsy. Special treatment was given for each of these classes of cases. As had been explained, the War Office had no intention of treating these unfortunate men as ordinary lunatics, and noble lords who would visit the institutions where they were treated would agree that there was no foundation for the allegations which had been made that these soldiers were being treated as if they were certified lunatics.

Viscount KNUTSFORD bore out the statement that the treatment which was being given to nerve-shaken soldiers was particularly good and suitable for their treatment and cure. If the men were too bad or needed a change they were transferred from the neurological departments of the military hospitals and were sent either to the military hospital at Liverpool or to the Springfield Hospital, Wandsworth. Objection had been taken to the fact that in some institutions the soldiers were treated by medical men who had been engaged in asylum work, but it seemed to him that this objection was baseless. The noble lord added that in this war disease had been reduced in an extraordinary manner. Since the war began only 920 cases of typhoid had occurred, and to-day there were only 60 cases of it in the whole British army. The medical men who were responsible for these splendid results could surely be trusted to show kindness to the soldiers whose nerves had been shaken or injured in the war.

The Marquis of LANSDOWNE stated that the policy of the War Office was completely to differentiate nerve-shaken soldiers from ordinary lunatics.

TUESDAY, JULY 27TH.

Medical Officers of the Territorial Force.

Replying to Lord HARRIS, Lord NEWTON said that the medical officers of the Territorial Force of junior rank were receiving less than the medical officers serving under a temporary contract. This inequality had existed since the date of mobilisation, and he was afraid that it was inevitable in the case of war. A concession of some value had been made to the subalterns of the Royal Army Medical Corps (Territorial Force) in view of the admirable service which they had performed. Lieutenants after six months' service had been promoted to the rank of captain. He believed that he was correct in stating that the question of medical officers of the Territorial Force was still under the consideration of the Treasury.

HOUSE OF COMMONS.

WEDNESDAY, JULY 21ST.

Recovery of Wounded.

Sir GEORGE SCOTT ROBERTSON asked the Prime Minister whether he could give the percentage of wounded who returned to duty, and whether the figure of 60 per cent. was still maintained.—Mr. ASQUITH replied: The percentage of the sick and wounded who return to duty remains approximately at the figure stated.

Distribution of Wounded Soldiers.

Colonel YATE asked the Under Secretary for War whether arrangements could be made for wounded soldiers who desired it being transferred to hospitals or convalescent hospitals as near as possible to their own homes as soon as they were fit to travel, if they could not be sent there direct on arrival.—Mr. TENNANT answered: As far as is possible every endeavour has been made to send to hospitals in the neighbourhood of their homes all sick and wounded on arrival in this country. It is, of course, easy to appreciate that in many cases this is quite impossible, and often undesirable for the patients themselves who may be so severely wounded as to necessitate their admission to the nearest hospital in which accommodation is available. In the case of those men sent to hospitals remote from their homes we endeavour to arrange for the transfer to hospitals in the neighbourhood of their homes of all cases which are likely to be unfit for duty for any period over six weeks, and which are therefore unlikely to be able to proceed to their homes on furlough within that period. Cases that are referred to the War Office are dealt with strictly on these lines. Suitable cases which are likely to be fit for duty within six weeks are treated in convalescent hospitals so far as accommodation in them is available. At present all these hospitals are in the South of England, but as others are opened in other parts of the United Kingdom it will be arranged, as far as is possible, to send cases to convalescent hospitals in that part of the country in which their homes are situated.

THURSDAY, JULY 22ND.

Women Nurses at Clearing Hospitals.

Mr. W. ROCH asked the Under Secretary for War how many women nurses were now employed in clearing hospitals in France.—Mr. TENNANT replied: Seven in each clearing station.

MONDAY, JULY 26TH.

Territorial and Special Reserve Medical Officers.

Replying to Sir CLEMENT KINLOCH-COOKE, Mr. FORSTER (Financial Secretary to the War Office) said: It has been decided to promote to the rank of captain all lieutenants of the Special Reserve and Territorial Royal Army Medical Corps who have given six months' mobilised service, with effect from April 1st last, and steps are now being taken to carry out this decision.

Promotion in the Royal Army Medical Corps.

Colonel YATE asked the Under Secretary for War to state the number of captains of the Royal Army Medical Corps who had received accelerated promotion to fill the vacancies created by the promotion of the 97 majors to lieutenant-colonels, in addition to the 14 captains promoted previous to March 31st, 1915.—Mr. TENNANT answered: The promotion of majors to lieutenant-colonel's rank in the Royal Army Medical Corps does not necessarily create vacancies in the list of majors. Promotion to the latter rank is ordinarily by time service irrespective of numbers. Fifty-one captains have received accelerated promotion in addition to the 14 mentioned and to others who were promoted after the usual regulation period of service.

The Question of Motor Operating Theatres.

Replying to Mr. LYNCH, Mr. TENNANT said: So far as I am aware no offer of a motor operating theatre has been made to the War Office, but the question of sending motor operating theatres to the front has been brought to notice, and has been carefully considered in communication with our expert advisers overseas, with the result that it has been decided not to send any motor operating theatres to the front, as the opinion of our expert advisers on the spot is that their provision would not diminish the rate of mortality of abdominal wounds.

Health of Troops in Mesopotamia.

In the course of an answer to Sir GEORGE SCOTT ROBERTSON, Mr. A. CHAMBERLAIN (Secretary for India) said: From information received during the past week it may be said that the health of the troops in Mesopotamia is good. There were during July 27 cases of, and 9 deaths from, enteric, but there has been no special prevalence of enteric at any time. The heat has been, and is, intense, but every effort has been made to minimise its effects. The troops have been supplied with spine protectors and goggles, mosquito nets and veils, ice, mineral waters, and fresh vegetables from Bombay. Electric lights and fans have been fitted in buildings where possible. It has been found practicable to give some of the men a change in India during the unhealthy season. There is ample hospital accommodation and a good supply of comforts for the sick. Operations lasting for 20 days, and culminating in an attack on a series of entrenched positions, have been carried out in a shade temperature of 113° under the most difficult and onerous conditions, the country being a network of marshes and canals.

Treatment of Tuberculosis in London.

Mr. BOOTH asked the President of the Local Government Board whether he was aware that the chairman of the Insurance Commission (England) informed the London Insurance Committee that the Local Government Board stipulated for a sum of £9300 annually for a scheme of dispensary services to deal with tuberculous patients; and whether he could give the Committee any information to enable it to come to a decision about the proposed expenditure.—Mr. LONG replied: The answer to the first part of the question is in the affirmative. With regard to the second part, I understand that the London Insurance Committee have come to a decision in the matter.

Mr. BOOTH asked the representative of the National Health Insurance Commissioners whether he was aware that the chairman of the Insurance Commission (England) attended the London Sanatorium Subcommittee, and asked for a yearly grant of £9300 to be given to the Local Government Board for dispensary services, and that no particulars were given nor the grounds stated upon which this charge was based.—Mr. CHARLES ROBERTS answered: No, Sir, no such request was made to the London Insurance Committee as is stated in the question. The Insurance Commission merely communicated to the London Insurance Committee for their consideration certain proposals resulting from the negotiations undertaken at the request of the London Insurance Committee by the Local Government Board with the metropolitan borough councils, together with an explanation of the principles on which those proposals were based.

TUESDAY, JULY 27TH.

Health of the Troops in the Dardanelles.

Mr. JOYNSON-HICKS asked the Under Secretary for War whether he could make any statement as to the health of our troops in the Dardanelles.—Mr. TENNANT replied: There is a certain amount of enteric and dysentery.

Payments under the Insurance Act.

Mr. HANCOCK asked the representative of the National Health Insurance Commissioners to state the reasons justifying the deductions insisted upon by the National Health Insurance Commissioners (England), in Circular I.C.L. 124 of one-third of the quarterly accounts of panel practitioners, chemists, and institutions, after services had been rendered and an agreement had been entered into by each party.—Mr. CHARLES ROBERTS answered: There is no question of any deduction from, or abatement of, the remuneration payable under the agreements to which the honourable Member alludes. The circular in question had reference only to the subject of advances on account of that remuneration, and indicated the extent to which such advances might safely be made without risk of exceeding the sums which will ultimately prove to be due under those agreements.

Mr. HANCOCK asked the honourable gentleman to explain why there had been no advance on account nor adjustment of the deductions of 10 per cent. made in the accounts of doctors, chemists, and institutions for the year 1914; and whether the Government would instruct the Commissioners to deal with the deductions, owing to enlistments, upon a less arbitrary and more generous basis by a temporary increase of the Treasury grant, if necessary, considering that the medical profession had undertaken the free treatment of soldiers' wives and families and other dependents and had lost the most healthy portion of their panel.—Mr. CHARLES ROBERTS said in reply: The final settlement for 1914 has been unavoidably delayed by certain difficulties arising out of the present state of the war. The balance due, which is considerably overestimated in the honourable Member's question, will be ascertained and paid as soon as is practicable, while in the case of the chemists, who might

otherwise have suffered hardship, steps were taken in April last to effect an emergency settlement which is now in progress. In reply to the second part of the question, I cannot admit the implications of the honourable Member's epithets, or his suggestion that a further sum should be provided by the Exchequer.

Appointments.

Successful applicants for vacancies, Secretaries of Public Institutions and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

BAINBRIDGE, F. A., M.D., D.P.H. Cantab., F.R.C.P. Lond., has been appointed to the University Chair of Physiology in the Medical School of St. Bartholomew's Hospital.

BARBOUR, J. M., M.B. Glasg., has been appointed Civilian Medical Officer to 2/4th King's Shropshire Light Infantry, stationed at Ramsey, I.O.M.

HORWOOD, JANET G., L.R.C.P. & S. Edin., F.R.C.S. Irel., has been appointed Temporary Medical Officer of Health for Bewdley.

MARTYN, REGINALD, L.R.C.P., Lond., M.R.C.S., has been re-appointed Medical Officer to the Exmouth Cottage Hospital.

ROPER, ARTHUR CHARLES, F.R.C.S. Edin., M.R.C.S., L.R.C.P. Edin., has been appointed Honorary Consulting Surgeon to the Exmouth Cottage Hospital.

THOMAS, ROBERT STANLEY, M.D., B.C. Cantab., L.R.C.P., M.R.C.S., has been re-appointed Medical Officer to the Exmouth Cottage Hospital.

THORNTON, GEORGE LESTOCK, M.A. Cantab., M.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer to the Exmouth Cottage Hospital.

VERITY, R. J. S., L.S.A., L.M.S.S.A., has been appointed Medical Officer to the Abersychan Council.

WRIGHT, S. R., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Romford District of the county of Essex.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).
When the application of a Belgian medical man would be considered the advertisers are requested to communicate with the Editor.

BATH, WINSLEY SANATORIUM FOR CONSUMPTION.—Senior Resident Medical Officer. Salary £400 per annum, with board, residence, and laundry.

BERMONDSEY MEDICAL MISSION FOR WOMEN AND CHILDREN.—Resident Assistant Medical Officer. Salary £80 per annum, with board and residence.

BEXLEY, KENT, LONDON COUNTY ASYLUM.—Locum Tenens Medical Officer. Salary 6 guineas a week, with quarters, board, and washing.

BIRMINGHAM GENERAL DISPENSARY.—Resident Medical Officer, unmarried. Salary £250 per annum, with apartments, attendance, &c.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—Surgeon. Also Assistant Surgeon.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Junior House Surgeon. Salary £100 per annum, with residence, board, &c.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—House Surgeon. Salary £100 per annum, with board-residence.

BRIGHTON COUNTY BOROUGH ASYLUM, Haywards Heath.—Temporary Resident Assistant Medical Officer. Salary 25 guineas a month.

BRISTOL GENERAL HOSPITAL.—House Physician for six months. Salary at rate of £150 per annum, with board, residence, &c.

BRISTOL ROYAL INFIRMARY.—Honorary Surgeon and Honorary Assistant Surgeon.

BROOK WAR HOSPITAL, Shooter's Hill, Woolwich.—Radiographer in charge of X ray Department.

BURY INFIRMARY.—Senior House Surgeon. Salary £250 per annum, with board, residence, and washing.

CARDIFF, KING EDWARD VII.'s HOSPITAL.—House Surgeon for six months. Salary at rate of £140 per annum, with board, residence, and laundry.

CARDIFF, WELSH METROPOLITAN WAR HOSPITAL, Whitchurch.—Resident Surgeon and Resident Physician.

CHEDDLETON MENTAL HOSPITAL, Staffordshire.—Locum Tenens Medical Officer. Salary 1 guinea per diem, indoor.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Medical Officer. Salary at rate of £200 per annum. Also House Physician. Salary at rate of £100 per annum. With board, residence, and laundry in each case.

DEVONPORT, ROYAL ALBERT HOSPITAL.—House Surgeon, unmarried. Salary £150 per annum, with board and laundry.

DUNDEE, SIDLAW SANATORIUM.—Resident Medical Officer.

EXETER, ROYAL DEVON AND EXETER HOSPITAL.—Assistant House Surgeon for six months. Salary at rate of £150 per annum, with board, apartments, and washing.

FOLKESTONE, ROYAL VICTORIA HOSPITAL.—House Surgeon. Salary £150 per annum, with board, residence, and laundry.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—House Physician and House Surgeon for six months. Salary as arranged, with board, lodging, residence and laundry. Also House Surgeon in Charge of the Casualty Department for six months. Salary at rate of £80 per annum, with board residence, and laundry.

GUILDFORD, ROYAL SURREY COUNTY HOSPITAL.—House Surgeon. Salary £150 per annum, with board, residence, and laundry.

HAMPSTEAD GENERAL HOSPITAL, Haverstock-hill, N.W.—Resident Medical Officer for three months. Salary at rate of £200 per annum, with usual allowances.

HASTINGS, EAST SUSSEX HOSPITAL.—House Surgeon. Salary £100 per annum, with board, residence, and laundry.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physician for six months. Salary 30 guineas.

KINGS LYNN, 1ST SOUTH MIDLAND MOUNTED BRIGADE FIELD AMBULANCE.—Three Medical Officers for 2nd Line (Territorial).

LEEDS PUBLIC DISPENSARY.—Female Resident Medical Officer. Salary £130 per annum, with board, residence, and laundry.

LONDON LOCK HOSPITAL, Harrow-road, W.—House Surgeon for six months. Salary at rate of £130 per annum, with rooms, board, and washing.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST, Bowdon, Cheshire.—Resident Medical Officer for In-patient Department. Salary £250 per annum, with board, apartments, washing, &c.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN, Parkplace, Cheetham Hill-road.—House Surgeon. Salary £120 per annum, with apartments and board.

MUKTESAR, INDIA, IMPERIAL BACTERIOLOGICAL (VETERINARY) LABORATORY.—Imperial Bacteriologist. Salary £960 per annum.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury.—Resident Medical Officer. Salary £100 per annum, with board and residence.

NORTHAMPTON GENERAL HOSPITAL.—House Surgeon. Salary £150 per annum, with apartments, board, washing, and attendance.

NORWICH CITY ASYLUM, Hellesdon.—Assistant Medical Officer. Salary £250 per annum, with board, apartments, attendance, and laundry.

NOTTS COUNTY ASYLUM.—Locum Tenens for six weeks. Salary 6 guineas a week, with board, residence, &c.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, N.W.—District Resident Medical Officer for four months. Salary at rate of £60 per annum, with board, residence, and washing.

ROYAL EYE HOSPITAL, St. George's-circus, Southwark, S.E.—House Surgeon. Salary £100 per annum, with board, apartments, and washing.

ST. ALBANS, 2/3RD NORTH MIDLAND FIELD AMBULANCE.—Two Medical Officers. Also Two Medical Officers for 3rd Line of same Unit.

SALISBURY GENERAL INFIRMARY.—Assistant House Surgeon, unmarried. Salary £100 per annum, with apartments, board, lodging, and washing.

SHEFFIELD EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary £300 per annum.

SHEFFIELD, JESSOP HOSPITAL FOR WOMEN (GYNÆCOLOGICAL AND MATERNITY DEPARTMENTS).—Female Junior House Surgeon, unmarried. Salary £80 per annum, with board, residence, and laundry.

SHEFFIELD ROYAL INFIRMARY.—House Surgeon and Assistant House Physician. Salary £100 per annum, with board and residence.

SHEFFIELD UNIVERSITY.—Demonstrator in Pathology and Bacteriology.

SHREWSBURY, ROYAL SALOP INFIRMARY.—House Surgeon. Salary £250 per annum, with board, washing, and residence.

SOUTHAMPTON, ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House Surgeon. Salary £120 per annum, with rooms, board, and washing.

STOCKPORT UNION, STEPPING HILL HOSPITAL.—Resident Assistant Medical Officer. Salary £300 per annum, with apartments, rations, &c.

TRURO, ROYAL CORNWALL INFIRMARY.—House Surgeon. Salary £150 per annum, with rooms, board, and washing.

VICTORIA HOSPITAL FOR CHILDREN, Tite-street, Chelsea, S.W.—Temporary Assistant Physician to Out-patients. Salary as arranged.

WALSALL AND DISTRICT HOSPITAL.—Assistant House Surgeon and Anæsthetist. Salary £150 per annum, with board, residence, and laundry.

WARRINGTON INFIRMARY AND DISPENSARY.—Senior House Surgeon. Salary at rate of £200 per annum, with board, apartments, and laundry.

WEST BROMWICH AND DISTRICT HOSPITAL.—House Surgeon and Assistant House Surgeon, unmarried. Salary £150 and £120 per annum respectively, with residence, board, and laundry.

WEST HAM AND EASTERN GENERAL HOSPITAL.—Resident Medical Officer. Salary £160 per annum. Also House Physicians and House Surgeons. Salary £120 and £100 per annum respectively, with board, residence, and washing.

WIGAN, ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY.—Junior House Surgeon. Salary £150 per annum, with board, apartments, and washing.

THE Chief Inspector of Factories, Home Office, London, S.W., gives notice of a vacancy for a Certifying Surgeon under the Factory and Workshop Acts at Sixmilebridge, in county Clare.

Births, Marriages, and Deaths.

BIRTHS.

CRUDDAS.—On July 24th, at Mosaphir, Private Hospital, Cork, the wife of Major H. M. Cruddas, I.M.S., Indian Expeditionary Force, of a son.

WELLS.—On July 27th, at Billericay, Essex, the wife of Captain Wells, R.A.M.C. (T.F.), British Expeditionary Force, of a son.

MARRIAGES.

BACK—NASH.—On July 21st, at Holy Trinity, Sloane-street, by the Rev. H. R. Gamble, M.A., Ivor Back, F.R.C.S., Captain, R.A.M.C. (T.), to Bertha Winifred (Barbara) Nash, eldest daughter of F. H. O. Nash, of Battle, Goring, Oxon.

DEATHS.

OWEN.—On July 23rd, Edmund Owen, F.R.C.S. Eng., LL.D. Aberd., Chevalier de la Légion d'Honneur, of Upper Berkeley-street, W., aged 68 years.

REANEY.—On July 2nd, killed in action at the Dardanelles, Captain Michael Foster Reaney, M.D., D.P.H. Lond., Indian Medical Service, attached to the 1st/5th Gurkha Rifles, aged 38 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

STUDENTS' NUMBER OF THE LANCET.

INFORMATION intended for the Students' Number of THE LANCET must be sent WITHOUT DELAY, addressed to the Sub-Editor, and marked on the envelope "Students' Number Only."

HEALTH AND SANITATION OF ZANZIBAR AND PEMBA.

ACCORDING to a report, prepared by Mr. R. H. Crofton, acting Chief Secretary, on the Blue-book of the Protectorate of Zanzibar (including Pemba) for the year 1914 the population at the last Census was 197,199, there being 43,396 males, 49,230 females, and 21,423 children in the island of Zanzibar, and 28,480 males, 31,899 females, and 22,751 children in the island of Pemba. The population of the town of Zanzibar was 35,162, made up of the following nationalities: British, 121; French, 19; German, 35; Portuguese, 18; American, 6; Norwegian, 3; Italian, 17; Greek, 11; Hebrew, 3; Goan, 440; Swedish, 1; Indian, 7720; Cingalese, 72; Eurasian, 2; Swahili, 20,285; Parsee, 183; Arab, 3639; Balooch, 330; Japanese, 7; Roumanian, 3; Nubian, 15; Nyassa, 3; Somali, 73; Barawa, 3; Comorian, 2175; Persian, 42; Abyssinian, 32; and others, 4. The density of population is estimated at 175 per square mile in Zanzibar and 219 in Pemba. The birth-rate (births registered) for the year 1914 was 11·3 per 1000, as compared with 15 for 1913; the death-rate (deaths registered) was 20·5 per 1000, as against 21·5 for 1913. One of the most disturbing features in the returns is the continued decline in births amongst the Swahilis. The paucity of children in the town has been attributed to venereal disease in early youth and to early marriages, which, amongst girls, are contracted from the age of 8. It is noted that the birth-rate amongst the Swahilis in the country districts is, generally speaking, much more satisfactory. The islands were free from any severe epidemic of disease during the year and the health of the community was fair. The deaths from tuberculosis registered in the town amounted to 235, as compared with an average of 194 for the last seven years. There were 145 fatal cases of malaria, as compared with an average of 177 for the last seven years. An antimosquito brigade has been organised by the medical officer of health, which carries out a weekly house-to-house inspection in the town and any antimalarial measures that may be necessary. The result of their efforts has been satisfactory. The larval index per 100 houses during the year was 2·3. Quinine is distributed to the subordinate Government officials and to school children free. Kerosene oil is applied to collections of water and millions of fish have, with satisfactory results, been placed in ponds, fountains, mosque tanks, and other places where water is kept permanently. Experiments are being made to ascertain if this fish will survive in swamps.

During the year 39 cases of plague were treated in the Infectious Diseases Hospital, of which number 26 died. The mortality—66 per cent.—is low when compared with that which prevails in other countries infected with plague. The number of rats collected in various parts of the town of Zanzibar amounted to 48,027, of which 215 were found to be plague infected.

The Government hospitals in Zanzibar are the European Hospital, the Native and Subordinate Staff Hospital, a hospital at Ziwani for the men of the King's African Rifles and their families, dispensaries at Mkokotoni and Chwaka, and the Infectious Diseases Hospital at Gulioni. The European Hospital was opened in the spring of 1913, and provides first-class accommodation for 4 or 5 Europeans, second-class for 5 Europeans, and second-class for 10 Indians or Arabs, together with two maternity rooms, first- and second-class. In the year 1914 122 cases were treated, as compared with 20 in 1913, the increase being principally due to the admission of sick and wounded officers and men of H.M. naval and military forces. The Native Hospital was built in 1896 and then consisted of a single building of one storey with 3 wards and 21 beds. In 1900 an outside block of four rooms was built for subordinates in the Government service. In 1907 an upper storey to both these blocks and a nurses' home and operating-room were added. There are in all 60 beds. During the year 1233 in-patients and 9509 out-patients were treated. The dispensary at Mkokotoni has six beds attached; 45 in-patients and 2526 out-patients were treated during the year. The dispensary at Chwaka has two beds attached; 15 in-patients and 1135 out-patients were here treated. The Infectious Diseases Hospital at Gulioni contains 50 beds; 505 patients were admitted during the year, of whom 26 died. In Pemba there is a Government hospital at Chake Chake with 24 beds; also dispensaries at Mkoani (with 6 beds) and Weti (12 beds). In all 519 in-patients and 10,355 out-patients were treated in these institutions during the year.

The number of lepers in the two islands amounts probably to about 450. Of these, 95 are segregated in one settlement at Zanzibar, which is subsidised by the Government and administered by the Roman Catholic Mission under the supervision of the medical officer of health, and 228 in three settlements in Pemba, while the remainder are at large. The Government has under consideration a scheme to acquire a suitable island for the establishment of a central settlement, in which all persons infected with this disease would be confined. There is a Poor-house in Zanzibar which is practically a home for the incurable. It is subsidised by the Government and administered by the Roman Catholic Mission under the supervision of the medical officer of health. The number of patients at the beginning of 1914 was 46; 86 were admitted during the year, 29 were discharged, and 63 died. The large roll of deaths is accounted for by the fact that the institution takes in many cases in the last stages of disease.

The water-supply to the town of Zanzibar flows by gravitation in pipes from protected springs some three or four miles to the north. Owing, however, to levels and other causes it has been found impossible to carry the supply to the higher parts of the town. The water is of exceptional purity. The amount of it that reaches the town is roughly 400,000 gallons in the 24 hours—i.e., about 11 or 12 gallons per head of population. When the large amount consumed by shipping is taken into account this allowance is entirely insufficient. To make up the deficit the population is obliged to fall back on the numerous, and by no means sanitary, wells that exist everywhere in the town. No system of sewerage exists, and, as matters stand at present, none is possible. Disposal of excreta is effected in the case of the European community on the dry earth system, and in Indian, Arab, and Swahili dwellings by cesspits. Town scavenging is carried out by a division of the public health department. The larger villages in the island possess small sanitary organisations of their own, while the chief towns in Pemba are administered on the Zanzibar model. As regards the question of town planning, wherever possible the erection of buildings of such height and design as are calculated to obstruct light and ventilation to adjoining property is prevented, and ruinous dwellings, which form favourite haunts for rats, are ordered to be demolished. In general it may be said that there is an increasing desire on the part of the better class Indians and Arabs to have the town kept clean and tidy, and efforts to make it so on the part of the individual householder are becoming apparent.

The total rainfall for 1914 was, in the town, 43·35 in.; in Mkokotoni (Zanzibar North), 62·99 in.; and in Pemba, 53·22 in. The wettest month was April, with 12·69 in.; the driest February, 0·05 in. The rainy seasons are well defined; the heavy rains occur in April and May, previous to the setting in of the south-west monsoon, and the light rains in November and December, before the recurrence of the north-east monsoon. The average mean relative humidity of the atmosphere was 78·0. The average mean temperature was: for Zanzibar, maximum 86·3°, minimum 77·5°; and for Pemba, maximum 82·36°, minimum 70·35°.

HOLIDAY TIME.

To the July issue of *Asylum News* Dr. C. T. Ewart, the senior assistant medical officer at the Claybury Asylum, contributes an interesting essay on "Midsummer Days," meaning thereby not only a few days in June, for, he says, "It is midsummer while the sun is warm, while the trees remain green, while the dancing waves fling their blossoms of foam under the darting rays that dazzle us, while the nights are soft and warm and the air is wafted like the sound of a blessing spoken in the scented darkness." The article, which is written with much feeling, is a plea for rest after strenuous work, and particularly for rest in the open air. "When the struggle for existence becomes so severe that men and women are unable to find leisure for a holiday, their fates are inevitably sealed, and either a hospital or a lunatic asylum will bulk largely in the horizon of their lives," says Dr. Ewart, out of considerable personal knowledge, but we are sure he would not have his words taken literally, for in that case our institutional patients would include an appalling proportion of our population. He implies throughout that the worker is engaged upon some physically or mentally exhaustive occupation and one whose ordinary routine is of an invariable intensity, no periods of comparative relaxation occurring in its course. Dr. Ewart's dread of urbanisation is extreme. "The truth, whether we believe it or not," he says, "is that town life deadens the mind, deadens the body, and deadens the soul, because of its too great pressure. ..... A love of nature is the 'open sesame' of hundreds of Aladdin's caves, and

when it dies out one of the lights of life will be extinguished." Here the assumption is made that those who live in the country love nature, but this is by no means an invariable case. Many people, especially those who go into the country after many years of town life, never see the country in which they live. They may thrive in it physically, but the pageant of the seasons means little for them.

THE LOSS OF THE *EASTLAND*.

THE capsizing of the excursion steamer *Eastland* in Chicago River on Saturday last proves to have been the most terrible disaster of the sort that has ever occurred. The steamer, with 2500 holiday-makers on board, turned over on its side while still in port. The hawsers snapped, and the ship, with one side showing above the surface of the water, drifted into the river. Upwards of 1000 bodies have been recovered, and probably only a very small percentage of the passengers who were below, estimated at 700 in number, escaped drowning.

TO HELP MAIMED OR BLIND SOLDIERS.

Mr. R. B. Marston, editor of the *Fishing Gazette*, 19, Adam-street, Strand, has published some very useful information as to how soldiers who have lost limbs or sight can enjoy the sport of angling, and will be happy to send particulars to any readers of THE LANCET.

General Practitioner.—The inference is drawn by a lay paper from an extract, and possibly is not in accord with the whole lecture. The Midwives Act received the support of the General Medical Council mainly because of the circumstances alluded to, and the Act, on the whole, has worked in the desired direction. Undoubtedly, however, there is room for improvement, and with the shortage of civilian medical men, which will probably become more severe, special care will have to be maintained.

J. V. should consult her medical man, while her apprehensions seem needless.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith-road, W.

MONDAY.—BANK HOLIDAY, COLLEGE CLOSED.

TUESDAY.—2 P.M., Medical and Surgical Clinics. X Rays. Mr. Baldwin: Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. Dr. Pernet: Diseases of the Skin.

WEDNESDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Pardoe: Operations. Dr. Simson: Diseases of Women. Mr. Gibb: Diseases of the Eye.

THURSDAY.—9 A.M., Dr. Bernstein: Bacterial Therapy Department. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. D. Armour: Operations. Mr. B. Harman: Diseases of the Eye.

FRIDAY.—10 A.M., Dr. Simson: Gynæcological Operations. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Baldwin: Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. Dr. Pernet: Diseases of the Skin.

SATURDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. Mr. B. Harman: Eye Operations. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Pardoe: Operations.

For further particulars of the above Lectures, &c., see Advertisement Pages.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITOR," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention should be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index and Title-page to Vol. I. of 1915, which was completed with the issue of June 26th, were given in THE LANCET of July 3rd.

VOLUMES AND CASES.

VOLUMES for the first half of the year 1915 are now ready. Bound in cloth, gilt lettered, price 16*s.*, carriage extra.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s.*, by post 2*s.* 3*d.*

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 28th, 1915.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
July 22	29·774	S.W.	0·57	89	63	59	59	62	Overcast
,, 23	29·570	S.W.	0·57	120	64	57	58	60	Raining
,, 24	29·694	S.W.	0·04	121	69	55	57	60	Cloudy
,, 25	29·790	S.W.	0·01	135	72	55	59	62	Cloudy
,, 26	29·810	W.	0·02	129	70	54	56	58	Cloudy
,, 27	29·750	S.W.	0·39	120	70	56	57	59	Raining
,, 28	29·920	W.	...	127	68	53	54	59	Fine

Communications, Letters, &c., have been received from—

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X.—X. Y. Z.

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